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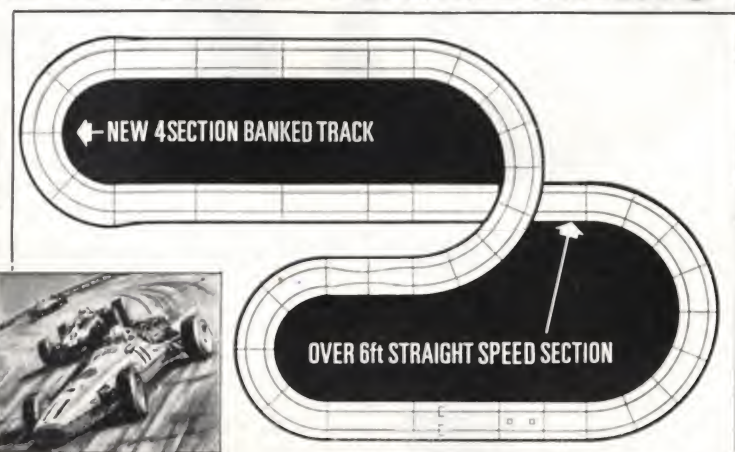
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# STOP PRESS · STOP PRESS · STOP PRESS · STOP PRESS RACE TRACK NEWS FROM AIRFIX MRRC

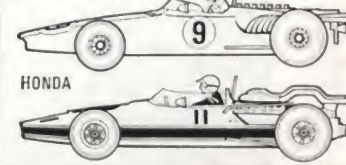
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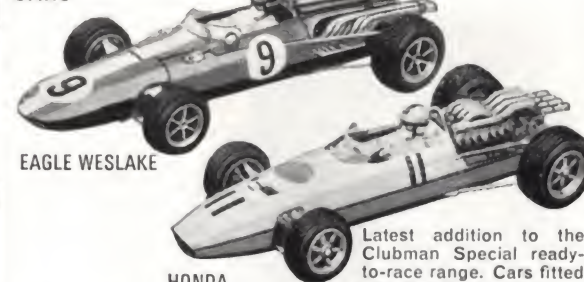
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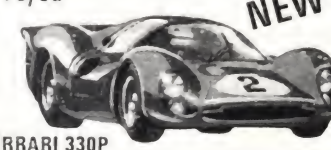


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AIRFIX magazine

## AIRFIX magazine FOR PLASTIC MODELLERS

April 1969

Volume 10 No 8

Editor Chris Ellis

#### Cover Picture

A fine aerial view of the Manchester Liners general cargo ship *Manchester Progress* on her maiden transatlantic voyage. Completed by Smiths' Dock Co of Middlesbrough in February 1967, *Manchester Progress* represents the latest generation of purpose-built cargo ships and is designed specially for scheduled voyages from Manchester to the St Lawrence Seaway and through the Great Lakes to Chicago. Modern cargo handling gear on board includes one 30 ton and two 10 ton cranes. There is also a fully automated engine room with closed-circuit TV control from the bridge. In addition to cargo holds, the ship has tanks for 1,200 tons of bulk oils or liquids. *Manchester Progress* is a 12,000 DWT vessel, 520 feet long with a beam of 63 feet and a service speed of 17½ knots.

(Illustration courtesy Airviews (Manchester) Ltd, the aerial photography specialists)

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MEMBER OF THE AUDIT  
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THE four UK and one German based communications squadrons of the RAF have been given the numbers of famous units recently disbanded so that their traditions might be continued.

The Southern Communications Squadron which moved from Bovingdon to Northolt on January 1, 1969, becomes No 207 Squadron of RAF Strike Command. The Metropolitan Communications Squadron which has been at Northolt since November 1957 becomes No 32 Squadron, Air Support Command. No 21 Squadron is now the number of the Western Communications Squadron at RAF Andover serving both Air Support and Maintenance Commands, whilst Training Command will be served by No 26 Squadron, the old Northern Communications Squadron, and will operate from RAF Wyton. The RAF Germany Communications Squadron has been allotted No 60 Squadron's old number and standard and will continue to fly from RAF Wildenrath.

Shortly after the new squadrons' organisation had been announced I visited three of them to find out more about their work and their aircraft. It was a pleasure to meet up with the new 207 Squadron as I had spent a fair amount of time with them when they were at Bovingdon a few years ago. I found that they were well pleased to take over the number of a squadron which was formed as long ago as 1918, and which had been in continuous service since then till it was disbanded at RAF Marham in April last year.

Squadron Leader Gordon Pierson, the CO, showed me some of the Squadron's records which included an impressive bound volume of photographs containing some superb shots of Handley Page 0/400s, DH9As, Fairey IIIFs, Manchesters, Lancasters, Washingtons and Valiants. He told me that their standard together with their neighbours of No 32 Squadron, were going eventually to be placed in the main arrival and departure area on the south side of Northolt.

No 207 Sqn operates Bassetts; they have eight of them numbered from XS775 to XS784, (excluding XS783), three



Above, left: Devon C1, VP957, at Andover. No 21 Sqn has eight of these aircraft for Air Support and Maintenance Command communications and VIP duties. Right: 207 Sqn is the largest user of Bassett C1s in the RAF. This aircraft, XS777, is one of nine on its strength. No 207 Sqn was formerly the Southern Communications Squadron.



Above: Pembroke WV735 was formerly the personal aircraft of C-in-C Signals Command. Cheat line and trim is yellow. It is now on the strength of No 207 Sqn, RAF Strike Command

Pembrokes, and two Devons. They are the largest users of the Bassett in the RAF and being attached to Strike Command will carry out the original role laid down for the aircraft, of ferrying 'V' bomber crews. They do, however, have many other duties in common with the other communications squadrons, not the least being the carriage of important passengers ranging from Air Marshals to airmen who have a need to get from one place to another in a hurry.

No 207's Pembrokes have an interesting history as they are all ex-C-in-C aircraft luxuriously fitted out and beautifully maintained. XL929 the C-in-C Strike Command's personal aircraft will continue in that role but the other two, XK884 and WV735, belonged to Coastal and Signals Commands before they came on 207's strength. Each one has a different colour scheme, dark blue for Strike, pale blue for Coastal and yellow for Signals.

### The Last of the Sycamores

No 32 Squadron, also at Northolt, has the honour of being the last unit in the RAF to operate the Bristol Sycamore HC14. They have five of them and each one differs in detail from the others as they have been largely rebuilt by Maintenance Units and by the Squadron for VIP and passenger carrying work. All military and SAR equipment has been removed and the rear seats are now fully upholstered. The aircraft will carry three passengers, if required, and in order to ease the problem of getting in and out of the high cabin, passenger steps have been built into the port side just below the door. The bulged perspex doors on each side of the passenger compartment have been retained which give an excellent downward view.

The squadron also has four Bassetts, an Andover CC2 and three Pembrokes. Squadron Leader Ian Semple, the CO, told me something of the work they do. 'We carry a great variety of people' he said 'but mostly our work is with VIPs'. A glance at the passenger lists for three months gave an idea of what he meant for numbered amongst them were members of the Air Force Board the most senior Army and Naval officers, Ministers of State, foreign diplomats and even royalty.

The Pembrokes and Andover are used for most of these VIP flights as the squadron finds that they are more suitable for the type of work. A senior officer's full dress uniform might cause him some difficulty if he had to climb the steps into a Bassett! A number of the aircrew are selected for VIP flights from the most experienced personnel on the unit and from those whose



personality is most suited to dealing with important people. It is of great importance I was told that VIPs are not kept waiting. Departure and arrival times are strictly adhered to as the organisation involved in setting up official visits demands careful planning.

No regular routes are run, apart from a shuttle service between Bentley Priory and High Wycombe for Strike Command using the Sycamores. Journeys can lead anywhere in the UK or Europe. The schedule may call for a trip to Turnhouse and back, an overnight stop at Naples or a run to Oslo and back in the same day. Until recently No 32 Squadron had two Vallettas for the longer range work but this is now accomplished by the Andover with its longer range and more comfortable interior. Normally this aircraft operates from RAF Abingdon as no servicing facilities are available for it at Northolt.

I asked both 207 and 32 squadrons how they got on with the Bassett. They both replied that the aircraft had its limitations but as far as they were concerned it fitted their requirements because the limitations were understood. It was an exceptionally nice aircraft to fly and performed satisfactorily. A total of four



passengers can be carried and the aircraft like all others in the squadrons carried both pilot and navigator. One disadvantage found by pilots was the grass field capability of the Bassett. The twin bladed props were likely to 'cut the grass' if used on some airfields including RAF Andover and in this respect it did give rise to a problem or two. The answer of course was to use the Pembroke for any grass field sorties and so the difficulties did not really arise as the squadron had the proper equipment to overcome them.

Metropolitan Communications Squadron was formed at Hendon in May 1944. It was numbered 31 Squadron in 1948 but reverted to the MCS title in 1955. Last year it flew over three-quarters of a million miles. The aircraft of both Northolt-based squadrons will retain their grey and white paint schemes but will have the new squadron crests on the aircraft in due course. The Bassetts will have theirs on the port side just aft of the entrance door to replace their existing communications squadron crests. No 207 are however thinking of putting their squadron badge on the fin and they will of course be removing the Air Support Command markings. Pembrokes will carry the crest on the nose just forward of the cockpit and the Sycamore will have its emblem on the crew door. All squadron markings will be on the port side of the aircraft.

### Famous forebears

No 21 Squadron which I visited later at RAF Andover, Headquarters, RAF Maintenance Command, has had a long and distinguished service record. It was formed as a bomber squadron in the 1914-1918 war and last saw service in Aden as a light

April, 1969



Above: The new technique of in-flight refuelling from a frigate is shown here by a Royal Navy Wessex Mk 3 helicopter topping up from HMS Rothesay. This facility enables large helicopters to remain on anti-submarine patrol for several hours in conjunction with small ships without returning to their larger ship base for fuel. HMS Rothesay's own small Wasp helicopter which is about to land on the ship's flight deck is on the right of the photograph. Left, Sycamore HC14, XG544, one of five aircraft of this type still serving with No 32 Sqn at Northolt. Note the 'air stairs', a locally built modification for VIP work.

transport unit, where it carried out many casualty evacuation flights with Twin Pioneer aircraft. Earlier, as a bomber squadron, it had mounted the famous raid against Copenhagen Gestapo headquarters in 1944.

Commanded by Squadron Leader Peter Cornish, No 21, operates from the all-grass airfield at Andover which has rudimentary navigation and still has to use goose necks for runway lighting. Squadron Leader Cornish said that it was very good training for his pilots to operate from the restrictions at Andover as they would have no trouble in getting into other restricted grass airfields. He went on to say that No 21 ran scheduled services after a fashion, doing a trip to the south and east on one day followed by a Scottish trip with an intermediary stop on the next.

The squadron has nine Devons, including one Mk 2, and five Pembrokes. Three of these have standard seating but two are maintained for VIP work. In this case the VIPs were C-in-C Maintenance Command and C-in-C Air Support Command. The aircraft of the latter, WV746, normally operates from Headquarters Air Support Command, Upavon.

I noticed that a number of the aircraft were strictly non-standard. In most cases seating configurations differed and in two of the aircraft, a Pembroke and one of the Devons, the navigator's position had been moved from the cockpit to the passenger cabin. This, I was told, was because the aircraft had originally belonged to a high ranking officer whose only opportunity to keep his hand in at flying was when on journeys in his personal aircraft. Having got rid of the navigator and fitted dual control to the right hand seat in the cockpit he was able to fly to his heart's content!

### NEWS FROM IPMS

THE February London branch meeting was devoted to a discussion on the techniques of building models from Styrene card, the main speakers being F. Henderson, W. Hearn and H. Woodman. Due to the interest shown by members the discussion didn't progress beyond the basic arts though these were expounded by the individual speakers according to their own methods which it was found differed widely.

The aircraft classes of the competition were dominated by scratch built models from a number of members besides those mentioned above. An additional competition featuring desert aircraft was also very well supported.

There will be no London Branch meeting on March 28 as this will be replaced by the Society's AGM which is to be held in the Clarence Restaurant of Maples & Co., Tottenham Court Road, London W1. The meeting will start at 17.45 and is restricted to members only.

A normal meeting will be held on April 25, 1969, at St Mark's Church Hall, Balderton Street, London W1. For details of membership please write to Membership Secretary, IPMS, 17 Cranleigh Court, Cove, Farnborough, Hants.—P.L.



# NEWS FROM AIRFIX

The world's greatest value in construction kits

- HMS 'Prince'
- Victor 2000 Estate Car
- Honda CB 450 motor cycle

NEARLY 300 years of British naval history are spanned by the latest Airfix scale model of a famous warship—the square-rigged HMS *Prince*, launched in 1670. This magnificent, finely detailed model has nearly 400 parts and is a companion to the *Royal Sovereign*—already a favourite among ship modellers.

The instruction sheet harks back to the days of the 'wooden walls' with such terms as 'aft cowbridgehead', 'belfry', 'beak deck' not to mention 'demi-culverins', 'sakers', 'main topgallant crosstrees' and 'fore channel deadeyes'. HMS *Prince* was a direct successor to the *Royal Sovereign* on which her builder—Phineass Pett the younger—had worked with his father.

*Prince* was launched in 1670 and was badly damaged in action against the Dutch in 1672 while carrying the flag of the Duke of York (then Lord High Admiral of England, and later James II) at the Battle of Solebay. She was a big ship—1,463 tons burden—had a keel length of 131 feet, and carried a wartime crew of 780 men. Her armament of 100 guns ranged from 42 pounder cannon on the lower gun deck to 3 pounders on the poop. HMS *Prince* was broken up in 1692 and some of her timber used to build the *Royal William*.

The Airfix model of HMS *Prince* measures more than 14 inches from stem to stern and comes complete with vacuum-formed plastic sails plus full assembly and painting instructions. Price of the kit is 21s 6d.

Right: First of a new Series 3 range of 1:32 scale car kits is the Victor 2000 Estate Car, complete with driver.



ONE of the most attractive estate cars produced by Vauxhall is the Victor 2000 model which Airfix have chosen to introduce their new Series 3 range of 1:32 scale modern cars.

Canting the new 1975 cc engine through 45 degrees has enabled Vauxhall's body design engineers to produce the low bonnet line which aids forward vision and helps to create the 'fast' look which makes the car's appearance so attractive.

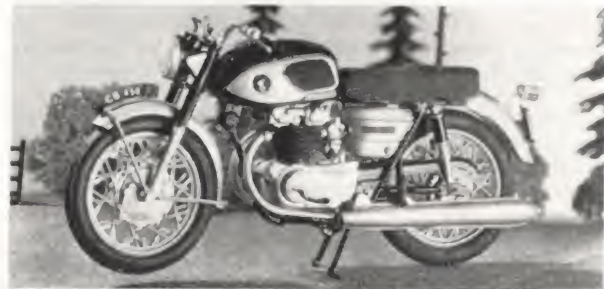
The 104-part kit even includes a miniature driver, suitcases, instrument panel, three-spoke steering wheel, floor mounted



Above: Magnificent new addition to the Airfix range of sailing ship kits is HMS *Prince* which has nearly 400 parts.

gear-shift lever, contoured seats, fully detailed suspension, transmission and exhaust system, detachable bonnet and tailgate, the canted engine, radiator and wheel trims.

When completed, the model Victor 2000 Estate measures 5½ inches overall. Full assembly and painting instructions are included together with a choice of cut-out registration letters. The kit costs 5s 6d.



Above: Latest Airfix motor cycle kit is the Honda CB 450.

MOTOR cycle fans will be pleased with the 1:16 scale model of the Honda CB540 sports machine just introduced.

The kit contains nearly 80 parts and when assembled is a perfect miniature in plastic of the real 100 mph machine which can cover the standing quarter mile in 13.9 seconds.

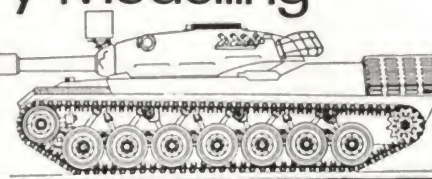
Often described as the sporting motorcyclist's dream, the Honda CB540 has a double overhead camshaft, and twin cylinder 444 cc engine which develops 43 brake horsepower.

It has many novel features including tiny transverse torsion bars instead of valve springs, a 12 volt electrical system including starter, and two-leading shoe brakes front and rear.

The Airfix kit which includes full assembly and painting instructions plus cut-out number plates and tank motifs is a 'must' for any collector. Price is 3s 9d.

## Military Modelling

by  
Chris  
Ellis



## TANKS OF 1917-18

BACK to World War I this month for more conversion possibilities with the Airfix 1916 tank kit, which gives an opportunity for just about the simplest kit conversion there is, the original Supply Tank of 1917. This is, in fact, the Mark II Supply Tank which requires less work in model form than any other variant from the Airfix kit, and is thus ideal for beginners. First used at the Battle of Messines in June 1917, the dozen vehicles used were conversions from existing Mark II Males with the guns removed and the sponson apertures plated in. Later, Mark IVs were built or converted as Supply Tanks, but that is another matter.

The Mark II Supply Tank model follows the kit instructions so far as the hull and tracks are concerned. The tail steering wheels and associated parts are omitted completely and the two locating holes in the hull rear are plugged with scrap plastic and smoothed over. The hatch in the cupola roof is omitted and the hinges should be filed off. Then cut a 16 mm x 8 mm rectangle of card or thin plastic card and cement it over the top of the cupola to form a new roof with no hatchway.

The sponsons come next and are assembled with the guns and mounts omitted. Before cementing them in place, cut rectangles of plastic card and cement them in the embrasures to fit flush with outside of the sponsons, taking care to butt them together neatly. You need two rectangles for each sponson, due to the angled front and side. All these Mark II Supply Tanks were fitted with crude silencers and exhaust pipes in place of the open baffles, and the exhaust pipe in the kit does admirably for this. All that remains is a stowage tray on the hull rear between the horns, and a drawing for this is given. Make it from plastic card with Microstrip for the supports. Some Supply Tanks also had a steel or wood board across the hull top rear edge to prevent stores falling off, and a 2 mm strip of plastic card can depict this as on my model.

Below: The Mark II Supply and Mark V Tank conversions before painting showing the plastic card additions. Right: (1) Plan of Mark V hull top. (2) Mark V hull rear and grille. (3) Mark V fuel tank side and rear gun. (4,5,6) Female sponson parts. (7) Semaphore mast and arms. (8) Mark II Supply Tank rear. Tray is 15 mm wide. (M) Machine gun from pins. (B) Ball mount. (C) Cupola top. (S) Support strut. (U) Unditching rail. All full-size.



Above: The completed models, with unditching beam on Mark V.

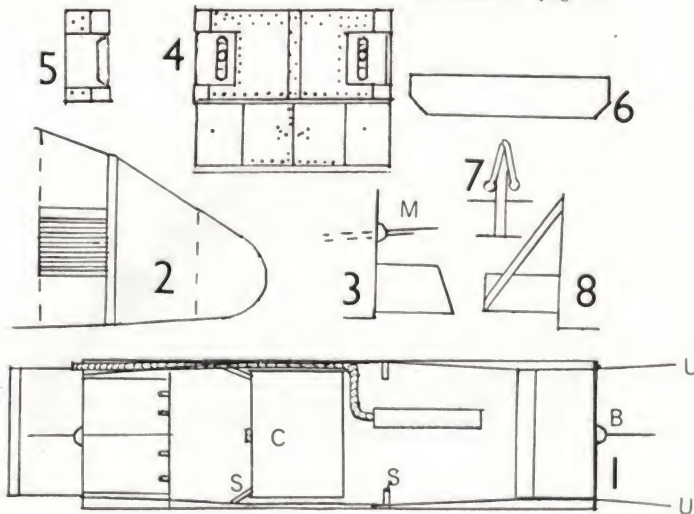
Carrying on with the fighting tanks in chronological order, the next to be considered is the Mark V which can be made in either Male or Female form. For this refer back to the Mark IV article which appeared in the April 1968 issue. Starting with the unmade kit, first saw off the raised hatchway from the hull top and file away the foremost of the two circular bosses moulded on the outer hull sides. This is the one which falls on a panel line. When this is done, complete the panel line full depth by nicking it in with a craft knife. The hull, sides, and track can now be assembled as in the kit instructions, including the exhaust manifold but omitting the steering tail. A new armoured fuel tank must now be added from plastic card on the hull rear, as in the Mark IV. This consists of a 10 mm x 17 mm bottom, a 8 mm x 17 mm top, and a sloping rear face 7 mm x 17 mm. There is no plate above this, however, as was fitted in the Mark IV.

Next add the rear cupola in the position indicated on the plan. This is simply a plastic card box, 5 mm in depth and made up face by face. The outer faces opened outwards and upwards and one or both could be cemented thus if desired. The exhaust pipe is best made from sprue heat-stretched to about 1.5 mm thick over a candle flame. It bends at right angles to clear the cupola and passes along the upper left edge of the new rear cupola to lead aft as shown on the plan. Two ball mounts are now required for machine guns at front and rear. I filed these from the tail wheel axle bosses and cemented one at the hull rear over the upper locating hull, and the other on the front of the front cupola over the lower central pistol flap.

Remaining hull detail for the Mark V is the grille each side for the Ricardo engine. I found that the simplest and most effective way of depicting this was to cut a rectangle of 10 thou plastic card and score it with horizontal lines. Each is then cemented on the hull side in the position shown. The grille on the left usually had a sloping flap along the top edge, also as shown in the drawing.

You must now decide whether your model is to be Male or Female. If you are not particular, the easy alternative is the Female since the sponson shape is simple and it can be made up from plastic card to match the drawing. It is in fact the same as that for the Mark IV, described in more detail in the April 1968 issue. This was the version I built. However, the Mark V had Hotchkiss machine guns instead of Lewis guns and these are made very simply from a couple of pins as in the drawing. Just trim them to length with pliers (removing the

Continued on page 367







## Part 1: Bombers before fighters

MILITARY aircraft were developed for scouting, but when offensive action was first taken it was by bombing. Furthermore, it was by aircraft designed for other purposes.

At the beginning of the first world war the British navy and army each had their separate air arms, the Royal Naval Air Service and the Royal Flying Corps respectively. The standard finish in both Services was plain doped white fabric and varnished wood, so that their colouring was 'natural'. Their only mandatory markings was a serial number and the two Services had agreed a common numbering system in November 1912 for all aircraft.

Aircraft were simply numbered from No 1, replacing earlier markings used by units which varied considerably. RNAS aircraft, belonging to the senior service, were allotted Nos 1 to 200 and the RFC No 200 upwards. However, by August 4, 1914, the day the United Kingdom declared war on Germany, the Navy had taken up their first 1-200 allocation and had been allotted a further batch of numbers—801-1600, later they took up 3001-4000 and 8001-10000. The RFC used the intervening numbers and thus, for the period 1914-1916 before prefix letters were introduced, it was possible to differentiate between aircraft of the RNAS and RFC by the blocks of numbers issued.

In 1914 the numbers were marked on the rudder as the only position which could be standardised. Maurice Farman pushers and Bleriot tractor monoplanes had no covered fuselage and therefore the rudder was the only covered vertical area. The RFC marked the numbers, in general, in black 18-inch digits, while the Navy, to give the numbers more emphasis, first painted a white patch on the off-white finish of the rudder fabric as a background for the number.

Undoubtedly the most famous bomber of 1914 was No 50 a BE2a used as the personal aircraft of Commander C. R. Samson. After being flown to Belgium in late August 1914, with other aircraft from Eastchurch, to form a nucleus of a Naval wing guarding the Channel ports and to attack Zeppelin bases, it made its first bombing flight on September 14. On that occasion,



The RE1 of 1913 when finishes were in general clear doped fabric, varnished plywood (fuselage top decking forward) and sheet metal (engine, side cowling and tank) (Imperial War Museum).

Samson set out from Dunkerque (Dunkirk) at 08.50 hrs and made a 100-minute flight over Armentières, expending two bombs on a group of four cars with some forty men around them.

When the RNAS launched an air attack from Antwerp on the Zeppelin sheds at Düsseldorf and Cologne on September 23, Major C. L. Gerrard, Royal Marine Light Infantry, set out on No 50 followed by No 149 a Sopwith Churchill, No 169 Sopwith Tabloid and No 906, an impressed Sopwith Tractor Biplane. None of these aircraft bore any marking other than their black serial number on a white patch.

An epic attack by Sopwith Tabloid No 168—a type regarded later as an embryo fighter rather than a bomber—resulted in the Zeppelin Z.IX being blown up in its hangar at Düsseldorf on October 8.

Perhaps the most famous of all the early bombing raids was that by a batch of Avro 504s, straight from the factory, taken by ship and rail to Belfort to carry out an attack on the Friedrichshafen Zeppelin sheds on the banks of Lake Constance. Four Avros were sent, Nos 179, the naval prototype and Nos 873, 874 and 875 the first production for the RNAS. No 179 unfortunately broke a tailskid on take-off and was grounded, but the other three attacked, damaging a Zeppelin and destroying the associated gas works. No 873 was lost on the raid.

The first Avro 504s in naval service were known as Avro 179 Type after the serial number of the prototype—a case of a



Above: A torpedo-bomber of 1914, the prototype Short 184 whose serial number conditioned the type number 184 for the most famous seaplane of the war. The Navy method of marking a white background for the serial number can be observed (J. M. Bruce/G. S. Leslie Collection).

serial number conditioning the type name. The famous Short 184 seaplanes also derived their type number from the serial number of the prototype—184.

## National markings introduced

In 1914 there was no internationally accepted ruling on marking aircraft with an indication of their nationality, although the French had led the way in 1912 with a representation of their Tricolour in the roundel form which they use to this day. The need for such markings by the British and German forces had not been foreseen until the roar of musketry that greeted friend and foe alike in the air, decided the issue that some indication was necessary.

The Germans used their Black Cross marking from as early as September 28 according to a report on that day by Lieutenant Osmond, RNAS, who made his observation from an armoured car. By that time several British pilots, having been fired upon by their own infantry, took the initiative and painted a Union Jack under the wings of their craft. This was also marked on the rudder, fin or fuselage sides, for in a forced landing British pilots were often treated with suspicion or hostility by the French who had no means of checking their identity. Thus, the first markings on British service aircraft, apart from serials, were to protect the crews from their friends!



Above: Two views of a BE2 of the RFC late in 1914, showing that national markings were originally for the benefit of those on the ground, not those in the air for only the undersurfaces bear indication of nationality (J. M. Bruce/G. S. Leslie Collection).

The Admiralty on October 26 made Union Jack markings on the underside of wings compulsory for RNAS aircraft, but by that time the RFC had already found the marking impracticable. It is an indisputable fact that shape is more easily discerned at distance than colours, and the central Red Cross of St. George, that forms the basis of the Union Flag, was the most prominent feature of the marking—and easily confused with the German Cross. This, the RNAS also came to realise a little later and each service issued their separate instructions.

By the end of 1914 two different forms of national markings were in use. The General Headquarters of the RFC in the Field decreed a roundel form, based on the French roundel but with the order of the colours reversed, on December 11; six days later the Admiralty issued instructions to mark a red ring with a white centre, on the wings of all RNAS aircraft. For a time the Union Jack remained officially appropriate for fuselage sides and rudders, but some pilots marked the Union Jack under wings additional to roundels, lest the significance of the latter not be appreciated.

Bombing aircraft of both services were probably the first to bear the new national marking forms. In the RFC the aircraft were predominately reconnaissance aircraft, used for occasional bomb-dropping and the odd Tabloid was used for scouting, not fighting. In the RNAS, undoubtedly, bombing aircraft were the first to bear the new red ring marking. These were the Short Seaplanes taken in carriers of the Harwich Force to



attack Cuxhaven. Nos 119 and 120 on *Engadine*, Nos 135, 136 and 811 on *Riviera* and Nos 812, 814 and 815 on *Empress*. Para 11 of the operational orders issued by the Commodore of the Harwich Force as early as December 2 stated:

'It is probable that our seaplanes will be attacked by hostile seaplanes. Aerial guns are to be manned, and the greatest care is to be taken that our seaplanes are not fired at by mistake. They can be distinguished by a large ring painted in red under each wing, and also Union Jacks'.

During 1915 the national markings on aircraft were further modified and then standardised. In May 1915 the RFC introduced rudder striping in national colours, with blue leading from the rudder post, then white and red trailing. From this same time it was notified that Union Jacks on fins or fuselage sides were no longer appropriate. Next month the RFC made it mandatory for all aircraft with covered fuselages to have roundels on fuselage sides and wings. By late June the markings had been standardised throughout the aircraft of the RFC on the Western Front. The actual aircraft concerned are those shown tabulated by squadrons. (See table at foot of page).

## Presentation markings

Organisations in Britain and the Colonies early in the war launched a scheme to raise an Imperial Air Flotilla. For every £1500 donated a BE2c would be given a name decreed by the donor; for larger sums other aircraft types could be 'purchased'.

Continued on next page

## RFC aircraft in squadron service on the Western Front, June 30, 1915, listed by serial number

(These aircraft were predominantly reconnaissance aircraft, but with a capacity for bombing)

No 1 Sqn	No 2 Sqn	No 3 Sqn	No 4 Sqn	No 5 Sqn	No 6 Sqn	No 7 Sqn	No 8 Sqn	No 16 Sqn
Avro 504A	BE2a	Morane Biplanes and Parasols	BE2a	Avro 504A	BE2a	RE5	BE2c	BE2c
752	336		234	637	206	617	1665	1676
758	492			750	241	631	1702	1684
769		1849	BE2b	755	468	674	1750	1694
773	BE2b	1862	493	782		677	2030	1699
2859	396	1866	705	783	BE2b	678		1752
4223		1870	796	4225	484	2457		1792
	BE2c	1873				2458	BE8	
Morane	1652	1874	BE2c	Vickers	BE2c		740	Maurice
1885	1657	1875	1678	Gunbus	1680	Voisin	2130	Farman
1896	1659	1881	1686		1781	1883		5004
1897	1660	5021	1698			1898	Bristol Scout	5009
5006	1662	5023	1701	1651		5001	1610	5015
	1669	5033		2873		5014	1613	5019
Caudron	1687		Voisin			5025		5027
1884			5028			5026		
1885			Morane					
1891			587					

NB: Squadron Nos 9-15 had not yet arrived at the Front. Additionally a Bristol Scout was held by Nos 1, 4, 5, 6 and 7 Sqn and a Martinsyde Scout by Nos 1, 5 and 6 Sqn. 19 aircraft of various types were in Reserve at Air Parks and another 26 under repair at Depots behind the Front.



## Bombing Colours—continued

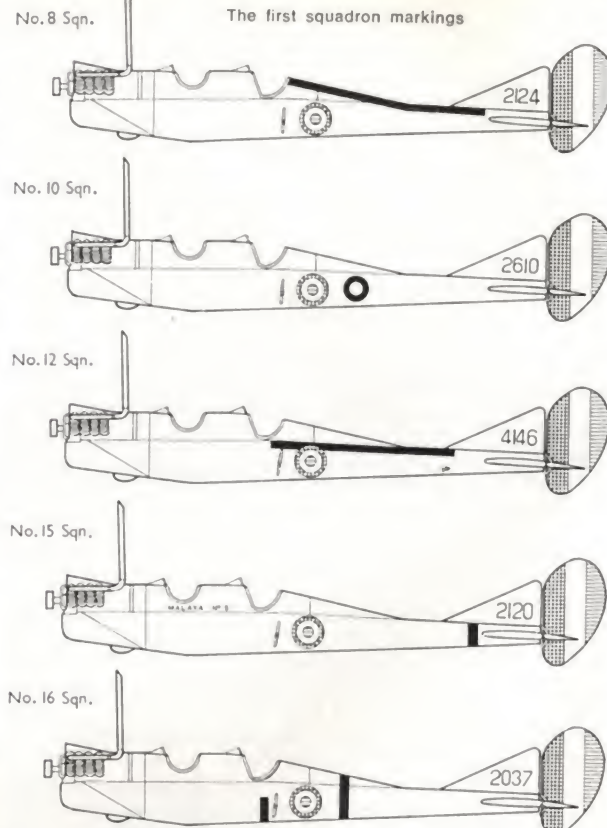
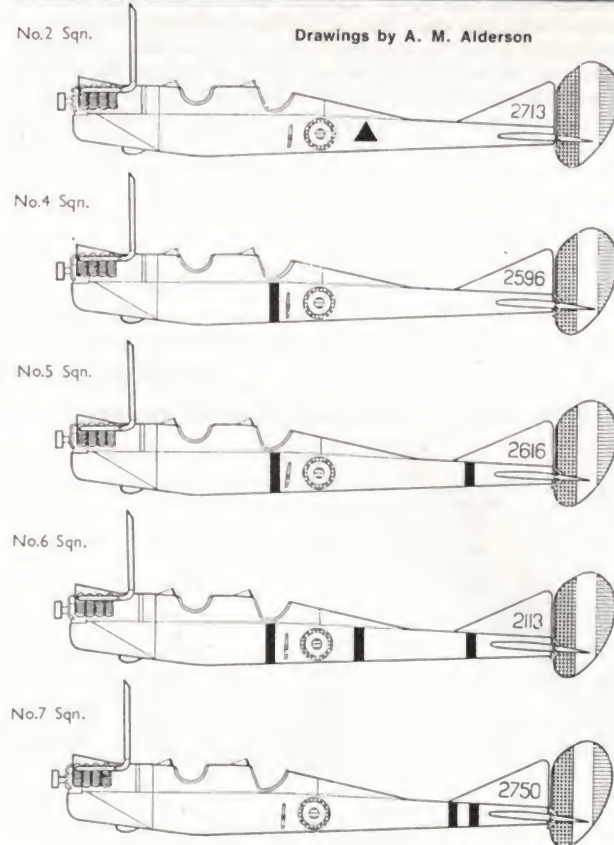
In fact the money went to a central fund and a normal production aircraft bore the presentation details.

The Overseas Club were responsible for raising money for several hundred aircraft and these aircraft bore names of far-away places, eg, Overseas Club No 33, an RE7, bore the name THE AKYAB in No 19 Squadron with which it served before the squadron left for France. A similar fund was started in India; a resulting example in No 16 Squadron was BE2c, PUNJAB No 2. A fund started by a Mr Alma Baker in Malaya brought a good response to which a No 52 Squadron BE2c bore witness with the marking MALAYA XVI MENANG on the fuselage.

## Squadron markings

Early in 1916 a need for the identification of particular squadron aircraft had arisen and some units had experimented with embellishing their aircraft, to the wrath of GHQ who banned all unofficial markings, but did introduce a standard

Below: A Breguet bomber used by the RNAS with a 'double-Jack' rudder marking (photo via E. F. Cheesman).



scheme, promulgated on April 23, 1916. This consisted of simple devices and bars marked on the fuselage side. Initially only ten squadrons, all equipped with BE2cs, were concerned; these were Nos 2, 4, 5, 6, 7, 8, 10, 12, 15 and 16 Squadrons.

## New trend

Until the end of 1916 bombing was mainly carried out by BE squadrons as a role additional to their normal spotting tasks. When replaced by RE8s in 1917 they concentrated more on their primary task and bombing became the work of specialist bombing squadrons.

Another new trend in 1916 was probably the greatest change in the character of British service aircraft ever to take place—the adoption of camouflage colours for aircraft throughout the two Services and the main subject of the next part of Bombing Colours.

Bruce Robertson

This new series is being contributed jointly by  
Bruce Robertson and Michael J. F. Bowyer.

Below: When rudders were first striped, the RFC moved the serial number presentation from the rudder to the fin as shown in the drawings, but in the RNAS the serial number was then presented on the fuselage such as shown on this BE2c (Real Photographs Ltd).



# NEW BOOKS

## REVIEWED FOR MODELLERS

## Vintage Aircraft

JANE'S ALL THE WORLD'S AIRCRAFT, 1913: facsimile reprint. Published by David & Charles Ltd, South Devon House, Railway Station, Newton Abbot, Devon. Price 105s until July 1, 1969, then 126s.

ROYAL FLYING CORPS TECHNICAL NOTES, 1916: facsimile reprint. Published by Arms & Armour Press, 677 Finchley Road, London NW2. Price 30s.

DAVID & Charles follow up their admirable reprint of the 1914 Jane's Warship book by an equally fascinating reprint of the 1913 edition covering aircraft. This is an exact replica of the original complete with the advertisements of the period very much recalling the era of 'Those Magnificent Men'. It is a superb reference book for anyone interested in the early days of aviation; it lists virtually every individual aircraft and airship of the time, as well as almost everyone who actually held a flying licence, since aviation in those days was a relatively small field of activity. It takes less than four pages, for example, to list all British flyers, civil and military, including the entire organisation of the RFC. The pages are packed with pictures, data, and scale drawings, and in addition there is virtually all else included relevant to aviation activity of the period. Splendid value, this, especially if you get it at the discount price offered until July 1.

The second book is a reprint of the manual issued to RFC personnel in 1916 and is packed with technical detail, maintenance notes, and scale drawings of the aircraft types used at the time by the RFC. There are also sections on wireless and engines, as well as a fascinating piece on aerial photography. This makes a most interesting reference book for anyone modelling World War 1 aircraft especially in larger scales. There are about 40 pages of scale drawings and 26 pages of text.

## World warplanes

WARPLANES OF THE WORLD, by John W. R. Taylor. Published by Ian Allan Ltd, Terminal House, Shepperton, Middx. Price 25s.

A NEW edition of a book first published in 1966, this latest volume is up-dated to include latest types in service and is also expanded to cover more Russian types. All first line types are illustrated by a picture and silhouettes with basic data and development history, while second line types have pictures and brief histories only. A good, well-produced, and authoritative book this, very handy for quick reference.

## Pocket Manual

MINITANKS MANUAL. Published by Model Hobby Products Ltd, Akroyd Place, Halifax, Yorks. Price 10s.

THIS is the UK edition of a booklet originated by Roco-Pectzy, makers of the Minitanks tank models. Obtainable for some years overseas, it has not been available in Britain before. The UK edition is bigger than the overseas edition, and more up to date. It includes a fine colour cover by AIRFIX magazine contributor Kenneth M. Jones, showing a Centurion tank in Korea. Basically the booklet illustrates the originals of all the vehicles produced as Minitanks models, giving brief but concise descriptions and histories, pictures and very neat little scale drawings. Also included is basic data for each vehicle. About 230 vehicles, guns, and other items are shown, presented in Minitanks catalogue order, the last being the Saladin which is the most recent Minitanks model. Besides the vehicles there are some useful organisation tables showing the composition of tank squadrons and companies of all the nations whose vehicles are depicted in the Minitanks range. These should be most useful to anyone wishing to build up units in miniature. The other point about this booklet is that it contains details of some vehicles, like trucks and guns, not readily available elsewhere. Pocket-size

April, 1969

and at its modest price for so much useful information, this little book is well worth having. It can be had from Model Hobby Products or direct from model shops stocking Minitanks.

## Carrier operations

CARRIER OPERATIONS IN WORLD WAR 2, by J. D. Brown. Published by Ian Allan Ltd, Terminal House, Shepperton, Middx. Price 37s 6d.

RELATIVELY little has yet been written on the aircraft carriers and Royal Navy aircraft of World War 2 when compared to the many books published on the RAF. This volume is a most valuable addition to what little there is, since it covers all theatres in which the FAA was engaged in great detail, giving much useful information such as ship and aircraft dispositions at various times right down to squadron states at the relevant periods. There are scores of excellent pictures, many of them rare and hitherto unpublished. To many modellers the book will be worth the price for the pictures alone. Highly commended for naval aircraft enthusiasts. A further volume is to follow.

## Books to come

TO commemorate the fiftieth anniversary of the first aircraft crossing of the Atlantic by Alcock and Brown in a Vimy, Patrick Stephens Ltd are publishing, in June, a monograph on the Vimy which gives a complete history of this famous type. It will be available as a 'standard' edition at 30s, or a luxury hand-bound 'de luxe' commemorative edition, limited to one thousand numbered copies, at 84s. In addition to numerous rare pictures, the book will include scale drawings of the main Vimy variants by AIRFIX magazine contributor Alfred M. Alderson. Author of the book is P. St. John Turner.

The English edition of *Die Deutschen Panzer*, previously announced, will be available in April priced at 85s until May 15, after which the price goes up to 95s. This edition will be titled *German Tanks of World War 2* and is published by Arms & Armour Press. Compared to the original German edition, this book contains many additional pictures, and corrections and revisions of the original material. There are 216 pages and the book is in large page format, different to the German edition. Also in April, Arms & Armour Press are publishing *British and German Tanks of World War 1* by Peter Chamberlain and Chris Ellis, which contains full coverage of all types, including the development vehicles, used by these nations in the first world war. Price of this book will be 25s.

Finally we have advance news of what promises to be a massive and definitive book on the Battle of Britain, *Battle over Britain*, by Francis K. Mason and Martin Windrow due for publication next September by Redwood Publishing Co.

## For wargamers

ADVANCED WARGAMES, by Donald F. Featherstone. Published by Stanley Paul Ltd, 178-202 Great Portland Street, London W1. Price 42s.

THIS new book is a follow-up to the author's previous three books of which the first, *Wargames*, is virtually the modern standard work on the subject. *Wargames* is the book to read for anyone who wants to get started in wargaming with Airfix figures and tanks, and *Advanced Wargames* goes much more deeply into the possibilities offering many sophisticated ideas for anyone who wants to progress to more involved table-top battles. It is definitely not for absolute beginners—read *Wargames* first—as it demands quite a knowledge of military terms and tactics. There are numerous tables, charts, diagrams, and pictures, and at least one chapter demands a knowledge of mathematics since it deals with the making of a simple 'computer'. Among many aspects of wargaming the book deals with military bands, despatch-riders, engineers, generals, weather, native troops, mercenaries, organisation, 'solo' fighting, and map-making, as well as the actual 'fighting' itself. Very comprehensive and very interesting.

## Under London

TUBE TRAINS UNDER LONDON, by J. Graeme Bruce. Published by London Transport, 55 Broadway, Westminster, London SW1. Price 12s 6d.

A REMARKABLY inexpensive paperback on 114 glossy art pages which illustrates (on average one photo per page) and

Continued on page 352



## Part 4: Special variants

THERE were a number of special purpose variants of the Panzer III, many based on old chassis.

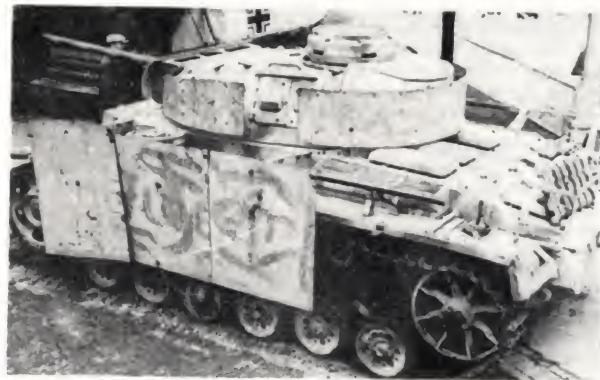
**Panzerkampfwagen III (Fl) (Flammpanzer III) Sd Kfz 141/3:** Produced from 1942, this vehicle was the basic Model L or M converted to a flame-throwing tank. The flame-thrower unit employed was of the pump operated type, and the projector was contained inside a steel tube about 5 ft long which from a distance looked like a long 5 cm gun. This was mounted co-axially in the turret with a machine gun, and a second machine gun was fitted in the normal hull position. A total of 225 gallons of flame-fuel was carried internally being contained in two tanks situated inside the hull. This enabled the projector to give 70 to 80 flame jets of 2-3 seconds at ranges up to 65 yards maximum and 40 yards effective.

A crew of three was carried and standard radio equipment Fu 5 and Fu 2 was fitted. Weight of this vehicle was 23 tons. A total of 100 vehicles were converted by Waggonfabrik Wegmann.

**Sturm-Infanterieschuetz 33 (sIG 33 Auf Fgst PzKw III):** Produced in 1941, this vehicle was based on the chassis of the PzKw III Ausf H (Type 7/ZW). This was to be used as a heavy assault vehicle. Mounting a 15 cm L/11 howitzer with 30 rounds and carrying a crew of 5, this equipment had a combat weight of 21 tons. Only twelve of these vehicles were built before the series was cancelled in favour of the adoption of the Sturmpanzer IV (Brummbär) on the PzKw IV chassis. Those vehicles to be completed were, however, used on the Russian Front.

**Minenraumpanzer III (Mine-clearing Tank on PzKw III chassis):** This is believed to have been a propelling vehicle for a mine clearing device. The hull was raised and the suspension was

*Below: Typical of late production PzKw IIIs is this Model L with skirt armour and spaced armour on the turret, seen in 1943. Bottom: One of the few sIG 33s to be built (Photo by Armin Sohns).*



modified and strengthened to withstand the force of detonated mines. Several were captured at the end of the war and a few of these vehicles appear to have seen service.

**Pionierpanzerwagen III (Engineers' armoured vehicle on PzKw III chassis):** Turretless Pz III fitted with decking, used to carry bridging components and other similar engineer stores. Fitted with armour skirting. Numbers of PzKw III were converted for this role after the type became obsolete.

**Bergepanzer III (Recovery vehicle based on PzKw III):** Various models of the PzKw III were converted for the recovery of disabled AFVs and other vehicles. Turret was removed and extra tools and jacks were carried. This vehicle had a towing capability only.

**Schlepper III (tractor):** Used for towing or for the carrying of stores particularly on the Eastern Front. This was a turretless Pz III fitted with a wooden box platform for the stowing of cargo. These vehicles were generally fitted with Ostketten.

**Munitionspanzer III (ammunition carrier):** Various models of the PzKw III had the turret removed and the interior of the hull re-arranged for stowage of ammunition. They acted as 'limber' vehicles to supply StuG III battalions in the later war years.

## COMMAND VEHICLES

**Panzerbefehlswagen III (Pz Bef Wg III) (Armoured Command Vehicle) (Sd Kfz 266, Sd Kfz 267, Sd Kfz 268):** During the course of the war, the Germans produced a series of vehicles specially equipped for use by tank unit commanders. From the PzKw III series, Models D and E were used, and were designated D, E and H respectively. There were three variants of each of these Panzerbefehlswagens, these again being designated Sd Kfz 266, Sd Kfz 267 and Sd Kfz 268 according to the wireless equipment carried.

All three had the prominent rail or loop aerial mounted over the rear deck behind the turret. In addition there were two rod aereals and a 9 metre winch mast with a star aerial. The loop aerial was replaced in 1943 by the normal mast aerial. The chassis and suspension of these commanders' tanks corresponded to the normal tank chassis of the Pz III Models D and E, but the turret was bolted on to the superstructure and was a fixture. Mounted in the turret mantlet was a dummy gun and a ball mounted machine gun.

Up to and including Model E the dummy gun represented a 3.7 cm gun, Model H was fitted with a dummy 5 cm gun (short barrel). All of these dummy guns were fitted into the old type internal gun mantlet. Where the hull machine gun was normally situated was a pistol port, this was surrounded by a frame to give the appearance of a machine gun mounting.

The fighting compartments of these commanders' vehicles were also altered to take various wireless equipment, and tables

were installed for the tank commander and his staff officer, who also operated the ball mounted machine gun in the turret. Vision facilities for the commander included a binocular observation periscope in the front of the turret cupola. Basically this corresponded to that of the standard vehicle though it was often re-inforced. Some turret roofs were strengthened by welding a patchwork of 1/2 inch plate on to the roof. Armour skirting was also sometimes fitted. The crew of 5 consisted of the tank commander, staff officer, two wireless operators, and a driver. The two wireless operators were seated one behind the other on the off side of the vehicle with the wireless equipment on their left.

**Panzerbefehlswagen III Ausf DI (Type 3c/ZW) (Formerly Ausf A):** Produced from 1938-39, this command vehicle was based on the Panzerkampfwagen III Ausf D using the same chassis and suspension as this model. There were three sub-variants: Sd Kfz 266, Sd Kfz 267, Sd Kfz 268.

**Panzerbefehlswagen III Ausf E (Type 4/ZW) (Formerly Ausf B):** Produced from 1940, this version was based on the chassis of Panzerkampfwagen III Ausf E. There were three sub-variants: Sd Kfz 266, Sd Kfz 267, Sd Kfz 268.

**Panzerbefehlswagen III Ausf H (Formerly Ausf C):** Produced from 1941, this was again based on the chassis of the Model E, but had additional 30 mm armour plates bolted on to the upper and lower nose plate and supplementary armour plate fitted to the front vertical superstructure. Wider tracks were fitted together with altered return roller spacing, but the original sprockets and idler were retained. A few Model F and G variants were also converted to Pz Bef Wgs. There were again three sub-variants: Sd Kfz 266, Sd Kfz 267, Sd Kfz 268.

The variant designation referred to the wireless equipment installed and this is detailed here.

**Sd Kfz 266:** This was equipped with Fu 13 wireless equipment comprising a 20 watt transmitter and two ultra short wave receivers all on the 27.200-33300 Kc/s band.

**Sd Kfz 267:** This was equipped with Fu 13, and Fu 6, with a 20 watt transmitter and ultra short wave receiver both on

*Below: A fine view of a Pz Beob Wg III OP vehicle showing the dummy wooden gun, central machine gun, and extra wireless aereals. (Axel Duckert photo).*



*Top: Flammpanzer III showing the flame projector tube replacing the gun. Above, left: Schlepper III tractor with Ostketten (East Front) tracks. Above, right: Minenraumpanzer III showing much modified suspension. (Col Icks photo).*

27.200-33300 Kc/s band, plus a Fu 8 30 watt transmitter on 1130-3000 Kc/s band and medium wave receiver on 835-3000 Kc/s band.

**Sd Kfz 268:** Equipped with Fu 13, Fu 6, Fu 8 and Fu 7 with 20 watt transmitter and ultra short wave receiver both on 42.100-27.800 Kc/s band.

While all these three vehicles had two wireless equipments working on the German tank frequency band, Sd Kfz 267 had an additional equipment on the main divisional link band and Sd Kfz 268 had another equipment for ground to air contact.

**Panzerbefehlswagen Ausf K:** This version of the commander's vehicle appeared in late 1942 and was based on the chassis of Pz III Ausf H, Type 7/ZW. This was a new development of the command vehicle, being a normal fighting tank with revolving turret and fitted with either a 5 cm KwK L/42 or 5 cm KwK L/60, and carrying extra wireless equipment, an Fu 8 or some other equipment in addition to the normal Fu 5. The wireless equipment could be removed and fitted into a normal tank in emergency. The loop or rail aerial was dispensed with and a mast aerial carried. A crew of 5 was carried, the gun loader acting also as wireless operator. The vehicle weighed 23 tons.

**Panzerbeobachtungswagen III (Armoured Artillery Observation Vehicle) (Pz Beob Wg III) (Sd Kfz 143):** Produced from 1942, the function of this vehicle was the control of German SP gunfire and various wireless and observation equipment was carried, including Fu 8, Fu 4 (a portable transmitter for use by an observer on foot) plus a loud-speaker.

Various models of the Panzer III were used (mainly E, F, and G). As with the Pz Bef Wgs, a dummy gun was carried, but in this case the dummy gun was mounted offset on the turret mantlet, a machine gun being fixed in the centre. A crew of 4 was carried.



# ROMAN FRIENDS AND FOES

BY BOB O'BRIEN



WITH the Airfix Ancient Britons set now available, there is a set of figures which can be used either as foes, or auxiliary forces, for the Romans without any adaptation. The set itself is up to the best that Airfix has produced, which is very good indeed, and the moulding and positioning is first class. The set includes a variety of types which can represent Britons or Gauls, remembering that this country, before the Roman invasion, had been subject to succeeding waves of invaders of Celtic stock, each of which carved out its own kingdom at the expense of the earlier settlers.

At the time of the invasion much of the South and West of the country was held by the Belgic peoples who had been the last wave of invaders and who were still gaining territory at the expense of their neighbours. This is one reason why the Romans did not have a too hard a job in their conquest—a number of tribes were prepared to stay neutral or even actively aid the Romans against their larger neighbours.

The Ancient Britons set contains four different swordsmen, javelin men, archers and slingers and men with two handed swords and two handed large axes. In addition there is a chieftain on foot wearing a winged helmet, and two chariots. All the footmen can be used as Britons or Gauls as they stand, while the archers, I have been told, can be used to represent Vandals, with their hair done up in the characteristic top knot. Two

## Part 7: Ancient Britons

types of shield are shown, one plain, with a centre rib and riveted boss, and one of metal, with representations of the elaborate designs found on actual shields of this type, and which were a feature of Celtic art and decoration. These shields should be painted bronze and then the designs carefully picked out with spots of bright colours—the effect will well repay some careful work. The warriors should not be painted uniformly—there was no regimentation amongst these people, and blues, reds, yellows and greens can be used for clothing, as well as the matt brown, grey and brick red. Helmets can be shown as bronze or iron, and the plainer shields can still be painted in bright colours, if required. Hair would be generally fair, with some reddish, and only the occasional one dark or black. Chariots will be dealt with later, as will cavalry conversions.

## Conversions

Most of the types except the slingers, archers, and the bare chested axemen, are shown as having helmets, leather protection and large shields, and they do in fact represent the more affluent types. Far more of the Ancient Britons had smaller shields and went bareheaded, in either trousers and cloak, or breech cloth and cloak, and it is worthwhile showing some of these lesser mortals as background to the better equipped types.

Two are shown here—the swordsman with sword drawn back and plain shield has simply a Robin Hood head substituted for the helmeted one on the original. The new head is from the standing billman, and has extra Plasticine 'hair' added—long hair was a feature of both Britons and Gauls. The other is a made-up figure comprising the lower part of a Commando, the torso of a native from the Tarzan kit with the head, again, from a Robin Hood man. He has been given a spear from a pin, about 1 inch long, and a small circular shield 8-9 mm in diameter.

A cloak of Plasticine, set with banana oil in the way previously described, is added with a sword scabbard from scrap plastic glued on either left or right as an optional extra. For those who wish maximum realism, the sword can be actually hung on the figure using very thin wire or thread. The sketches and photographs of these figures will explain more than my words. Only these two foot figures have been dealt with at this time, but this set has literally dozens of conversion possibilities in it, some of which I hope to show later.

## Cavalry conversions

The Britons used less cavalry than the Gauls, as their horses were not generally up to the size and weight of the Gaul horses, and also they retained the use of chariots when they had been abandoned on the Continent. The conversions shown here are in fact mounted on the US Cavalry horses, and can be assumed to be Gauls—for Britons mount the same figures on the smaller Airfix Red Indian or Cowboy horses. In all cases remember to carve or otherwise remove the saddle and blanket roll, and, of course, there were no stirrups at this period of history. Any of the foot swordsmen can be converted to cavalrymen; the one with sword drawn back can be used as he is by cutting around the inside of the legs to fit on to the

horse, and pressing him down into a small pad of glue, with the usual headless pin connecting the horse and rider.

All the other types require careful cutting at the waist so as to leave the shield, and cloak, if worn, intact. The sketch will show the idea. These are then mounted on the lower half of a US Cavalry rider, with the pin going right through the lower part into the horse—I cannot emphasise how much depends on these pins—the plastic used on these figures cannot be completely secured with glue, and one must remember that they may come in for a lot of handling if you use them for wargames. There is nothing more annoying, and detrimental to one's personal morale, than to have riders continually falling off their horses!

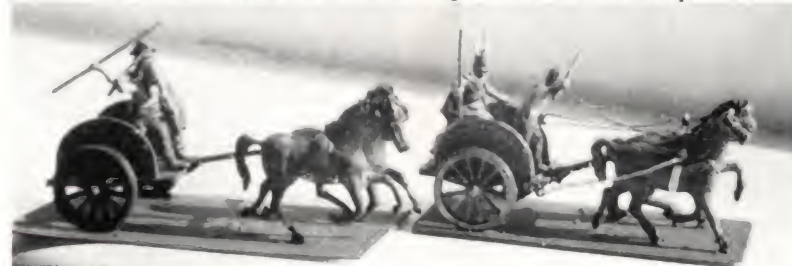
Two other cavalry conversions on these lines are shown, one of the swordsman with large bronze shield, and the other of the kneeling swordsman. The swords of the last man, and the man with sword drawn back have been removed and replaced by spears made from long brass pins. These pins have the heads cut off and a light hammer applied smartly to the point, with the pin held on a hard metal surface. With practice a fine spear blade can be produced with a couple of smart taps, as the brass is soft enough to spread into just about the right shape.

These riders would be persons of some note and their clothes and decoration, both of themselves and their mounts, should reflect this, in both colour and quantity. The rider retaining his sword has had his body painted to represent a moulded cuirass of bronze. Remember in the case of those on US Cavalry lower halves to put two coats of paint on to the trousers above the cavalry boots, so as to conceal the line of the boot and give the impression that the trousers are full length and the rider is wearing shoes—the cavalry type boot was rare among these people.

## Chariots

The chariot as supplied in the set is the only item that merits a rebuke;

**Below:** The two chariot models described showing added details and new spoked wheels.



**Top:** Airfix Ancient Britons, including the modified figures described in the text. **Above:** Three cavalry conversions from Ancient Briton torsos on US Cavalry lower halves.

while the general style of the body is correct, the wheels should be removed and kept for use on ox-carts and artillery wagons. The Celts had evolved a wheel with from 8 to 12 spokes which was light and strong, with a single piece metal tyre shrunk in place, holding the whole thing in a strong and yet flexible assembly. This was unknown in the Roman world, where wheels were tyred with separate iron strakes nailed on, and were certainly not up to the Celtic type in efficiency. To replace the wheels supplied I have used the plastic wagon wheels supplied by Slaters Humintures, using the sizes of either 3 ft or 3½ ft in 4 mm scale in their catalogue. The cambered rims of these wheels have been filed flat and tyres fitted from plastic Microstrip 10 thou thick.

The other objection is to the sitting driver—I have seen no reference to a sitting driver in any Ancient war or racing chariot, and I would think that such a position would offer a great amount of discomfort, not to say danger. These chariots travelled at a good rate, over roughish terrain, and to control the horses adequately, and keep balance, a standing position would be necessary. To modify the driver figure is simple—he is cut off at the waist and fixed in the glue and pin manner to the legs of a Red Indian foot archer, or those of a US Artilleryman. When set, the figure is then glued in place, to one side, so as to allow his aristocratic master elbow room. As a further safeguard I have put

small pieces of pin into each foot and pushed them into the chariot floor.

Two chariots are shown—one is completely standard with the modifications shown above, except that to give variety the foot javelin man has been promoted, his base has been cut off and he has been glued with his feet pinned to the chariot floor. The other chariot is a slightly cut down version with the yoke and part of the harness shown, while the rather large horses supplied have been replaced by a pair from Airfix Wagon Train set, as being more nearly the size of the ponies which would have been used in practice. Even now, I am not happy about this, as they cannot be made to look like ponies, but still look like small horses.

The sketches will show the layout for the amended chariot; the crew are normal, except that in both chariots the plastic spear has been replaced by the type suggested for the cavalry. Both chariots have been mounted on a base—this I consider a 'must' if they are to be used for wargaming, as otherwise one runs into the same trouble as with riders which are not securely fixed, only this time it is the horses and crew which become detached.

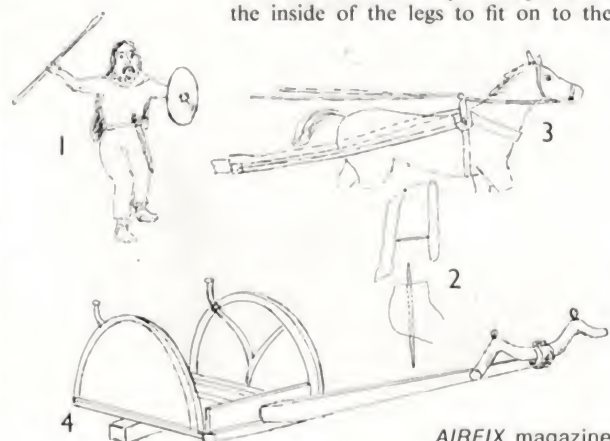
In conclusion, I should say that the Ancient enthusiasts have things going all their way at the moment—with general release of the Ancient Britons, Airfix have also announced a Roman Fort, based on the type of mile castle as built on Hadrian's Wall, while Bellona have announced a Roman marching camp, a representation of the fortified camp that a Roman force would normally build at the end of a day's march while in enemy country. All it needs now is a model of a British Hill fort and we shall be set for another series of Roman invasions.

## CORRECTIONS

ONE or two small amendments to previous articles. In the March issue on page 326, for '137 Sqn' read '145 Sqn', and the Beaufort on Photopage was a Mk I not a Mk II as described.



**Above:** Lack of space prevented us including this picture in the January 1969 issue. It shows a complete Numidian cavalry regiment, charging to the attack led by their standard bearer. All are converted from Airfix Red Indians. **Right:** Sketches for this month's Ancient Britons conversion show (1) spearman using lower half of Commando figure as described on this page; (2) method making cavalry with lower half of US Cavalry figures; (3) rigging details for chariot; (4) chariot modifications for lighter type.



AIRFIX magazine



describes in commendable detail all London deep tube rolling stock, past and present. A feature of the book is its authenticity and both the author, who is Mechanical Engineer (Running—Railways) of London Transport, and the publisher are to be congratulated on their success. We are promised a second volume dealing with LT's surface stock and to this we very much look forward.

### Rail pictures

PHOTO RAIL, Bryan H. Jackson, Maple Cottage, Ashburnham Avenue, Harrow-on-the-Hill, Middx. Price 6s.

A 44-PAGE illustrated catalogue listing some 500 railway photographs taken by the author in the final 14 years of steam on BR. The subjects are classified under Regions and classes and the catalogue gives details of engine number, name, and time and place where photographed. Individual photographs are available ranging in price from 1s 3d per postcard to 25s for a 12 inch x 10 inch enlargement.

### Race ace

THE ART CHESTER STORY, by John W. Caler with John Underwood. Published by the John W. Caler Corp, 7506 Clybourn, Sun Valley, California. Price \$2.95 plus 7% postage.

THIS is a book which covers an aviation story little known to British readers. It is nevertheless of great interest and covers

the history of Art Chester, one of the best known American 'barnstormers', in some detail.

It is also well illustrated and features all of the aircraft associated with Chester in and around the US National Air Races. Several scale drawings of aircraft flown by the master are included.

### For enthusiasts

AIR COMBAT. A bi-monthly aviation enthusiasts magazine published by Eagle Aviation Enterprises, PO Box 82, Rockaway, New Jersey 07866. Price 85 cents per issue.

THIS is a new publication dealing specifically with interest in World War 2 military aircraft. It is mainly a photographic presentation and as such is of value to the many modelling enthusiasts who specialise in this period.

Reproduction is by litho but here we were pleased to see that the standard is slightly better than many similar US publications produced in this medium. Photographs are of sufficient size to see detail and there are many rare items included.

In the two copies we received there are many features of interest but the one that took our eye was a two-part story on the Swiss Air Force during the war. Illustrations of Morane D-3801s, Bf 109Es and 'Fs, interned German and US aircraft and an extremely rare shot of a D-3801 escorting a B-17 which had strayed off course are given. There is also a Fort in Swiss markings! Elsewhere we found some interesting Royal Navy pictures of rare aircraft and a series of pictures from the German side of RAF aircraft shot down over enemy territory.

## SAILPLAN



N.C.L. HACKNEY

### Part 3: Seizing, shrouds, and deadeyes

SO far, in Parts 1 and 2, we have looked at the basic standing and running rigging, the principles of which apply over the whole 300 years covered by the Airfix sailing ship range. Now to consider the details of full-size practice which can do so much to improve the accuracy of sailing ship models, and some of the short cuts which can be used by those who want to improve a basic kit without reproducing exactly all the fine details. The key items for consideration are the shrouds, deadeyes, ratlines, blocks, sail details, belaying points, reef points, footropes, and 'atmosphere', and I will deal with them over the next few articles in that order.

Much of what follows will indicate the need for seizing two 'ropes' together, and a word of explanation on this may be useful. A seizing is started by threading a needle with fine thread and passing it through both the main threads which are to be seized (Fig 9a). The needle is then removed, and the short end of the fine thread is brought down alongside the two main threads, the long end then being wound tightly around all

three. After several turns the short end of the fine thread is doubled back up outside the turns, leaving a loop at its lower end (Fig 9b).

Carry on winding turns over the two main threads and the loop as well, and end by passing the free end through the loop itself and cutting off with  $\frac{1}{2}$  inch spare (Fig 9c). Pulling on the original short end will then give you a finished seizing with both short ends coming out of its middle (Fig 9d). The whole seizing is given a coat of shellac or thin matt varnish and the two short ends are cut off when this has dried. With that as background, let us now look at the details.

**Shrouds** Each of these runs from the foremost spare deadeye on one side, up round the masthead, and back down the same side to the next deadeye aft of the original starting point. The two shrouds formed by each single rope are seized together at the masthead (Fig 10), and if a single deadeye is left over by this system its shroud is run round the masthead and held to itself just below that point by two seizings (Fig 11).

It is as well to make the full set of shrouds in one go, making each double from a length of thread of the right scale thickness and long enough to go from keel to masthead and back again. These lengths are 'middled' and then seized into a loop very slightly larger than the masthead diameter. Singles are made from a length rather more than half of the doubles and the surplus cut off after the two seizings are made.

Once the shrouds are completed they can be bedded on the masthead. I am deliberately ignoring any other ropes to or from the masthead in order to show only the shrouds, which are always bedded in the order shown in Fig 12. First in position are the foremost pair starboard, then the

foremost pair port, then the second pair starboard, the second pair port and so on, ending with the singles—if there is an odd number of deadeyes—first the starboard one and lastly the port. Care is needed to ensure that each eye is firmly bedded at the masthead, and that each individual shroud leads fair to its deadeye.

Although Fig 12 shows crossrees, the system is exactly the same if the mast carries a top (ie, platform). In that case, the eye of each pair of shrouds is fed upward through the lubber's hole in the top, placed over the masthead and bedded down as usual.

**Deadeyes** Once the shrouds are in position they need to be attached to the deadeyes. In the Airfix models these are made as single plastic mouldings, and the suggestion is made in the kit instructions that the shrouds should be glued behind them. I submit that nothing could look less realistic, and the obvious move is to modify the deadeyes to allow them to be turned to the shrouds as in normal full-size practice. If the deadeyes from the kit are to be used, the upper ones should be doubled to cotton-reel form, as shown in end view in Fig 13, by using two thin slices of plastic rod or sprue or two small circles of plastic card. The shrouds can then be brought round the 'pulleys' so formed and seized back on themselves at two points, the end being cut off to a scale length of about 5 feet on the short leg. Note that the short leg is always to the left of the shroud when viewed from outboard, as shown in Fig 14—thus the short leg will be forward of all shrouds along the port side and aft of all these along the starboard.

Some modellers, however, may aspire to even higher standards of realism and wish to reeve the deadeyes with lanyards as in full-size practice. In such a case, the first stage will be to produce scale-size deadeyes

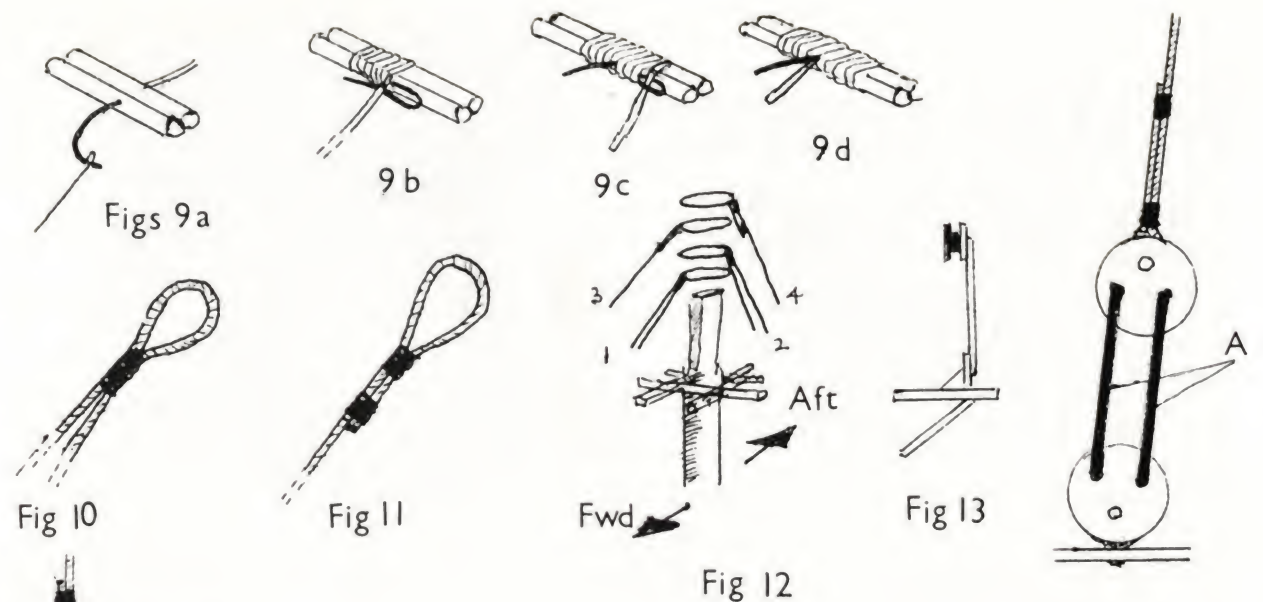
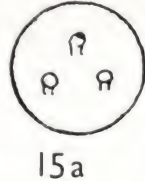


Fig 14



Figs 15a



15b

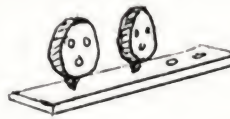


Fig 16

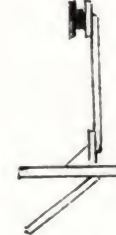


Fig 17

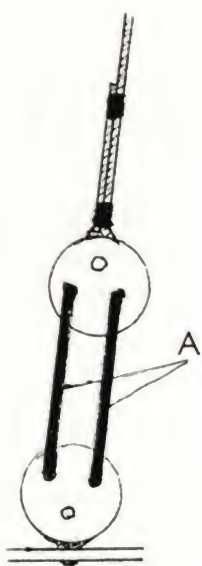


Fig 18

All drawings are keyed to references in text

as shown in Figs 15a and 15b, using wood, scrap plastic, sprue or plastic card, and to drill them. The deadeyes provided with the kit are then parted from their channels, which are drilled to take short lengths of the shroud thread. These lengths are passed up through the holes, round a deadeye, back through the hole, and tied off under the channel with a spot of adhesive to fix them. Fig 16 shows a set partly completed (note which way up these lower deadeyes are placed).

Now a jig will be needed to ensure that the upper deadeyes are turned in at the correct height above the lower ones. This can be two short pieces of stiff wire with the ends turned over at the same distance apart as the ends of the two outer ropes on the original kit deadeye pressings, which have been cut off. The jigs are placed with their lower pins through the outer holes of the lower deadeye, and the outer holes of the upper deadeye are placed over the upper pins of the jigs. The whole assembly is then moved to line up with the relevant shroud which is turned in as described earlier. Fig 17 shows the completed job with the jigs (A).

After these are removed reeving can begin, and for ease of working it is best to rub the thread along a small block of beeswax to stiffen it slightly before starting. A thumb knot is made at one end of the lanyard which is then threaded between the two deadeyes as shown in Fig 18 (the

inside view from the deck), and finally brought round the shroud in a half-hitch. Note that the lanyard always reeves outward through the upper deadeye and inward through the lower. The half-hitches round the shrouds should be left on the loose side until all the deadeyes have been reeved, so that any necessary fine adjustments in tension can be made before they are finally tightened. This should be left until all the standing rigging is completed and drawn taut. The half-hitches are then tightened, and the lanyard carried up the shroud by a series of round turns, ending with a final half-hitch at a scale height of 2 feet above the upper deadeye.

If the reeving and tying off has been done correctly, the view from outboard of the completed job will be as Fig 19. Lastly, since deadeyes and their lanyards are part of the standing rigging, they are given a coat of matt black paint and then coated with shellac or thin matt varnish.

I have gone into this subject of making and reeving deadeyes so that the modeller wishing for absolute fidelity can see exactly what is involved. Anyone who has neither the time, patience, or skill for exact replica deadeye work—they are, after all, quite small in the Airfix ship scale—will find that the simplified form described earlier and shown in Figs 13 and 14 gives a quite acceptable appearance, certainly a big advance on the method suggested in the kit instructions.



Fig 18



Fig 19



# Water tower in 00 scale

## ENGINE SHED CONVERSION FOR STANDARD OR NARROW GAUGE LAYOUTS

By **MICHAEL ANDRESS**

**Right:** A view of the completed model water tower. Rear face is identical but has bricked in window space, while the far end has an inset central door from the engine shed kit.



**BRICKWORK** in proper relief is very effective in models, much more so than the printed brickpapers, no matter how cleverly produced these are. However, the usual methods of depicting relief brickwork, such as scribing the mortar lines or cutting out and applying individual bricks, are rather laborious. For this reason I regard the Airfix Engine Shed kit as a valuable source of nicely modelled brickwork and I have used parts from this kit to build a model water tower. If you have an Airfix engine shed already, built either as the basic kit or as one of the various modifications that have appeared in the model press at different times, there will be a certain 'family likeness' between it and the water tower. This continuity of style looks much more realistic than model structures which do not fit in with each other due to too much difference in style or size.

The construction of this model is fairly straightforward but some care is needed in fitting to obtain a neat finish and it is perhaps not very suitable for a first attempt at kit conversion. The tank is built up from plastic card and parts from an Airfix Footbridge kit. The photo-plan shows the parts from the kits and how they are to be cut up. As usual, let me remind you to keep all the unused parts as they may well be useful for other conversions in the future.

The cuts must be made as neatly as possible and must be straight and true because otherwise you will have difficulty when you come to join up the various pieces. Use a fine saw (like an X-acto razor saw) for cutting as a knife does not cut this thick plastic so easily. The cuts marked 'bevel' should be sawn at a 45 degree angle to match

up with the bevelled edges of some of the kit parts.

Join the two outer sections of kit part No 10 (one end of engine shed) after cutting it as shown. Make sure the two pieces fit neatly before cementing them together, with pieces of scrap plastic glued across behind the join to strengthen it. Cut a rectangle of 10 thou thick plastic card, 15 mm long by 3 mm high and scribe it vertically at 1 mm intervals to represent bricks. Then cement this above the door opening so that it extends an equal distance beyond the door opening at each side. The other end of the tower is made up by joining two pieces cut from the engine shed sides, kit parts No 6 and No 9. Again make sure the join will be neat, if necessary filing away any irregularities, before cementing together to form the end. This join should also be braced across the back with scrap plastic.

Cut two pieces of 10 thou thick plastic card 30 mm long by 3 mm high to form the brickwork above the window openings. By making vertical cuts at 1 mm intervals from the top edges for about 2 mm into the pieces they will acquire a slight curve and can be fitted above the window openings, following the curves of the top of the openings. After cementing in position, scribe with a knife the rest of each line between the bricks, the upper parts of which are represented by the scissor cuts. The window opening in the rear wall is 'bricked up' using the centre segment left over from the engine shed kit, part 10. This centre section has to be cut into two at the level of the step in its surface so that it can be mounted to give a flat surface. This piece of brickwork is only just wide enough to cover the opening,

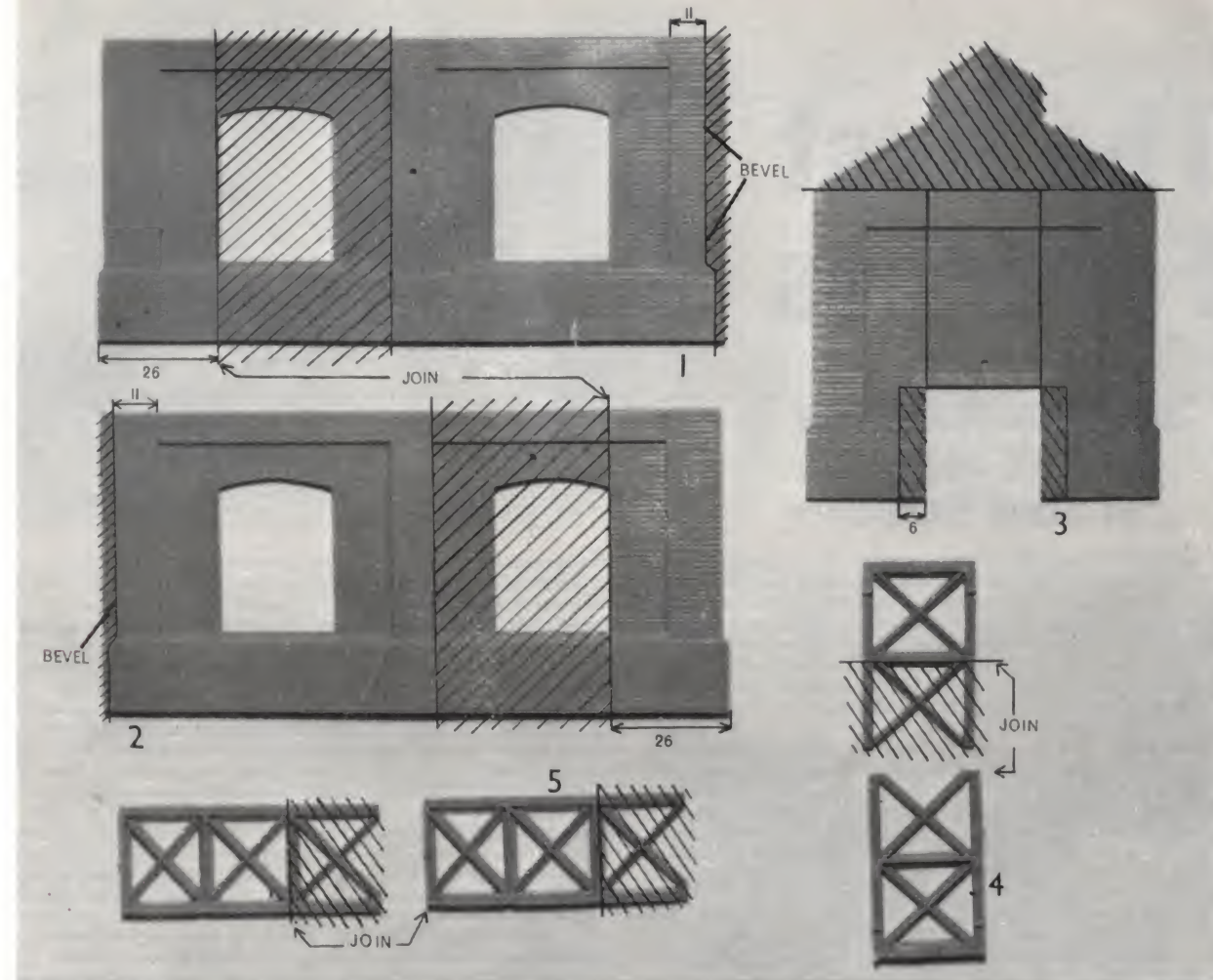
so glue a few pieces of scrap material behind the joins to hold it in place.

The four walls can now be assembled. Try to make the four corner joints as neat as possible by filing as necessary before assembly, but don't worry too much if there are a few small gaps. Brace the structure inside each corner near the top and bottom edges. After the cement is firmly set, any gaps can be filled in. I use 'Tapwata', a cellulose filler, for this. This should be mixed with only a little water so that the mix is fairly stiff. Apply this to fill the gaps and allow a little surplus as the filler shrinks slightly as it sets. If there is any unevenness of the joins at the centres of the two ends, this is the time to improve them with filler.

At this stage also use filler to fill in the small hole in the rear wall where the lamp was fitted in the original engine shed, and build up the defect in the brickwork at the left-hand end of the rear wall (where the notice board fits in the original engine shed). Put an excess of the filler on and after it has set hard, carefully file away the excess until this part matches up with the rest of the brickwork.

The tank as I have modelled it (for the convenience of using parts from the Footbridge kit) is a little wide for the base structure, so I added an extra layer of brickwork to reduce the overhang; a layer three rows of bricks high is cemented along the upper surface of the front and back. Each of these strips is of two pieces, joined near the centre of the wall, the pieces being cut from the left-over parts from the engine shed sides.

The structure should now be painted. I used Airfix Brick Red matt paint (M1) for the outer surfaces and



for the edges of the door and window openings, and black for the inside. One of the small doors, Part 16 or 17, can be painted and then glued into the door opening in the end wall. File the inner surface of one of the kit window frames, Part 4, to remove the casting marks present at the corners. This frame is then painted and mounted with the inner surface facing outwards, behind the window opening in the front wall of the tower. Glue a piece of transparent plastic behind the frame to represent the window glass. If you want any missing, broken or cracked panes, cut away the appropriate parts of the plastic, or scribe 'cracks' on it before fixing it in place.

The tank is made up from plastic card and from parts from an Airfix Footbridge kit. The photo-plan shows how the front is made from parts of two full pier sides (the back is identical) and how the ends are each made up from parts of two short pier sides (only one end is shown in the picture).

Note that in assembling the ends the bracing will in fact be inverted on

one of the panels compared with that in the other two panels each end. This is not at all noticeable in the finished model and it would be rather complicated to arrange this in any other way, so I settled for this slight anomaly quite happily. Cut and file away all the protruding ridges on the front and rear surfaces of these parts.

Each of the ends and the front and the back are then glued on to rectangles of 20 thou thick plastic card of appropriate size, and the four are assembled after bevelling the adjoining surfaces at the four corners (I found that even by bevelling I was not able to get a perfect fit and I filled the gaps afterwards using 'Tapwata' filler as I did for the base).

A top and a bottom of 60 thou thick plastic card are cut to fit inside the front, back and ends of the tank to strengthen it. I covered the top with pieces cut from commercially available corrugated copper sheeting and then painted the whole tank with matt black paint. Finally, fix the tank in position on top of the base structure.

**Above:** Photo-plan showing how the engine shed and footbridge parts are modified. Large numbers indicate order of working; small numbers are dimensions in millimetres. Discard shaded parts.

When the water tower is in place on my layout I will be installing an Airfix water crane nearby to complete the model. If your layout does not use steam locomotives but is entirely diesel, you could still build this model, weathering it to look disused and derelict, with plenty of rust in evidence on the tank. In this case you need not install a water crane if you do not wish to, as it could well have been removed, whereas the water tower would have been left to avoid the expense of demolishing it.

Some tanks have a trapdoor in the roof with a ladder leading up the side of the tower to reach it, but this does not always seem to be present and I have omitted it; however, you could easily add this feature to your tower if you wish.



# The first Fortress

## CONVERSION PROJECT FOR ADVANCED MODELLERS BY STEVE STEVENS

NEEDED the space, so my oldest Airfix B-17G model had to go. It was built in a hurry and showed every inch of it. The logical answer was to cannibalise all the useful parts and give the resulting hulk to the children to play with. However, about a year later, I exhumed the remains whilst digging at the bottom of the garden. Laying the carcase reverently to one side, I continued to dig—a germ of an idea forming in my mind. Why not use this relic to see if it were possible to convert the standard Airfix kit into an earlier version of the famous 'Fort'?

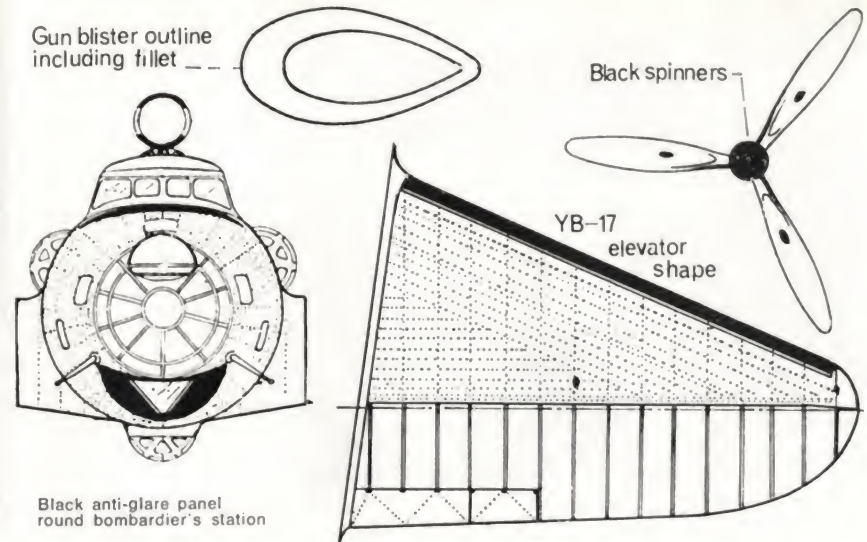
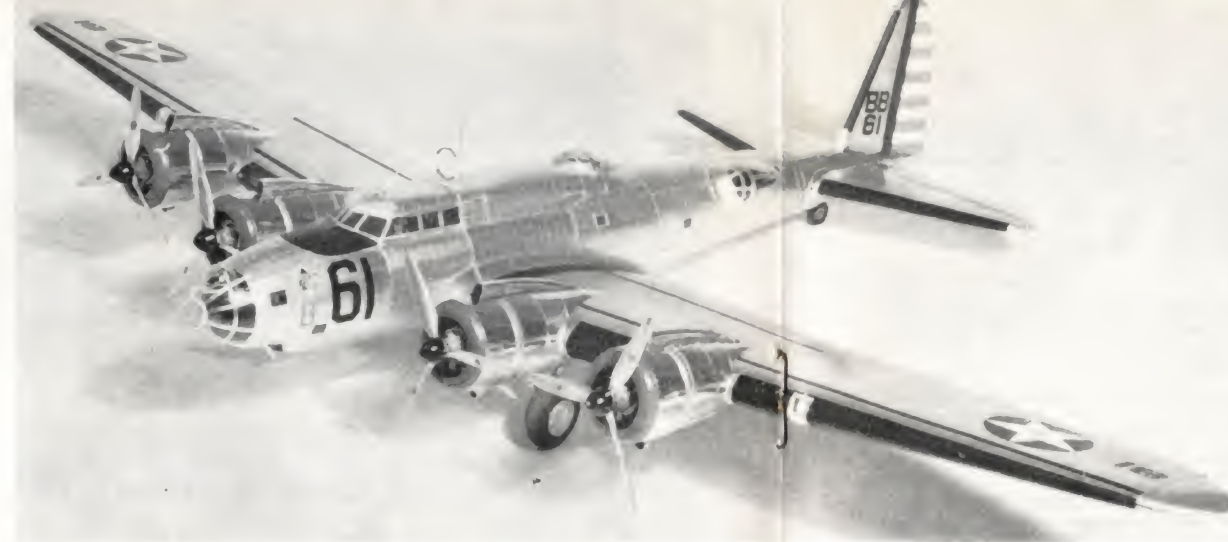
That night the body was subjected to an excruciating amount of surgery but endured the attack so well that I decided to remake it completely. It was perhaps a fortunate omen that my spares box contained all of the smaller bits necessary for the conversion.

Three weeks later, out rolled my shiny new YB-17, the first service test version in the colours of the 96th Bombardment Squadron, US Army Air Corps—a tribute to the robustness of Airfix kits, Metalskin covering and my gardening ability.

For those who have nurtured a yearning to make an early model of the B-17, the following short account and the accompanying scale drawings indicate just what will be expected of you. It will be assumed that the modeller who tackles such a project is adept in such chores as slicing plastic with a saw and hot knife, shaping balsa and plastic wood, and is prepared to mould the many turrets and transparencies.

**Fuselage:** Assemble the fuselage parts, omitting the extreme nose and tail transparencies, the turrets, guns and their rotating mechanisms. Paint the insides dull green, insert the pilots, then cement the two halves together. My pilots were Airfix Ford Trimotor men whose cheese-cutter hats and buttoned uniforms converted readily to Air Corps colonels—the only addition being a scale 5 cent cigar! Cut away 3 inches from the rear of the fuselage and trim off the dorsal fin down to the body line, remove the chin turret fairing and

**Below:** Nose and engine detail.



make four tear-drop shaped holes where the gun blisters locate. File and sand away all rivets, smoothing the small windows and transparencies flush with the surrounding plastic, these being polished before final finish is applied. It is imperative that all of the clear plastic inserts are dealt with as not all of the G-version windows are required for the YB-17—some will form part of the body contours. Now a new balsa tail cone can be fitted, shaped from the plan, sanding the joint well to obtain a smooth, unbroken line. Fill in the mid-upper turret hole and build up the new bomb aimer's bulge under the nose with plastic wood. All wooden parts were filled and sandpapered before the fuselage was washed to remove loose particles within.

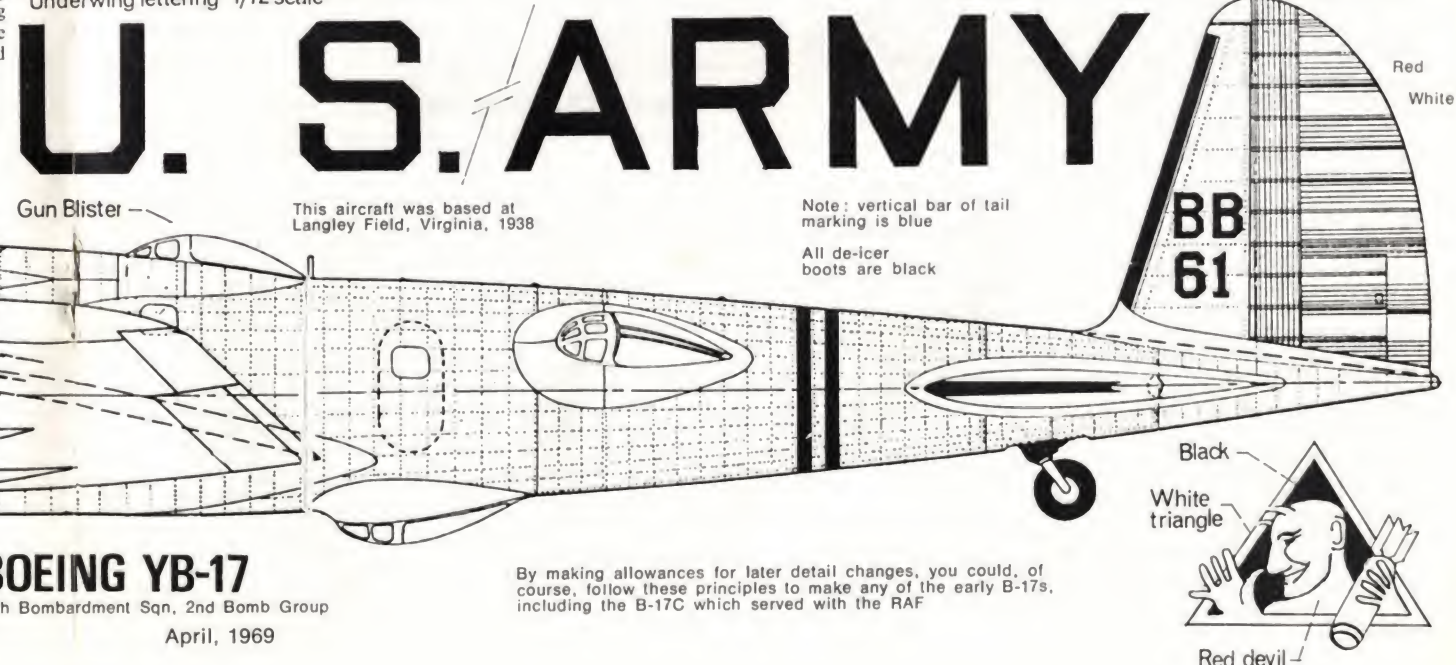
**Wings:** Both wings can be completed with the retracting undercarriage installed, although the wheels should not be fitted until later as they will otherwise obstruct operations. Re-shaping of the inner wing nacelles including the removal of all four superchargers can best be done with a hot knife, melting and merging the plastic detail until it can be smoothed over with a file. As the plastic here is rather thin it may be necessary to make good any craters with plastic wood and, at the same time, fill in the oil cooler openings in the leading edge of the wing. For a better scale appearance the wingtips may be thinned down considerably and a sharper trailing edge formed with a flat file.

**Motor assemblies:** File flat the raised cooling gills on each cowl and add plastic to the rear to make them 1/10 inch longer, leaving enough space to permit the prop-shaft retainers to be fitted. The long YB-17 oil-coolers on top of the engine nacelles can be bent and

Note: D/F loop painted in red (top), white (sides) and blue (bottom) segments

For wing markings, including code '61', see model pictures

Underwing lettering 1/72 scale



**BOEING YB-17**

96th Bombardment Sqn, 2nd Bomb Group

April, 1969

By making allowances for later detail changes, you could, of course, follow these principles to make any of the early B-17s, including the B-17C which served with the RAF

material were cut to form a complete new covering for the model. The whole job took three sheets of the matt, plus a half sheet of gloss to simulate the highly polished engine nacelles. Anti-dazzle panels, leading edge de-icer boots and all lettering were hand cut from Letracolor Black (though you could use black transfer sheet); flight leader bands on the fuselage and underwing were solid red transfer strips; cowl front ends were painted red, spinners black. To complete the model, the wheels, nose pilot tubes, undercarriage doors, airdials and D/F loop were glued into place after the Metalskin work was complete.







A Morris Portee of the 5th Infantry Division in 1943 showing typical markings. Note the yellow bridge plate, the RA flash, the '46' indicating the divisional anti-tank regiment, and the formation sign, partly obscured, on the offside mudguard. Vehicle is towing a 2 pounder (Imperial War Museum photo).

# British Army markings

## ARMoured AND INFANTRY DIVISIONS, 1944

By PETER HODGES

THE previous article on this subject (AIRFIX magazine, November, 1968) was written as a follow-up to Chris Ellis's original notes of 1966, and, therefore, did not cover certain aspects of vehicle marking with which he had already dealt.

From the correspondence forthcoming since November, however, it is clear that the magazine has many new readers who missed this original article, so for their benefit I will start this month's notes by recapitulating on certain early markings.

Before doing so, however, two major corrections should be made to the data given in November's edition. Both items of information were included in the belief that the source was accurate, but in both cases it was proved not to be so.

The corrections are to the wartime RASC Arm of Service badge which should be turned clockwise through 90 deg so that red is above green, the dividing line running from bottom left to top right; and to the squadron marks carried on AFVs which were never transposed between 'C' and 'HQ' squadron. HQ squadron was always designated by a diamond shape, and indeed, a fourth mark, in the form of a vertical rectangle should be added to signify 'D' squadron when this existed.

Readers who have a copy of the magazine of April, 1966, are therefore advised also not to look too closely at Chris Ellis's sketches on this subject of squadron marks!

One last point before proceeding. It is generally unwise to be dogmatic in such matters as vehicle marking and wrong to imagine that a rigid standardisation always existed. Absolute uniformity is difficult enough to implement in peacetime: in wartime it is often quite impossible. One can visualise an occasion perhaps, when the stencil used for a formation sign was accidentally applied the wrong way round with the result that a block of vehicles had their Divisional sign facing 'backwards'. I have, in fact, representations of the 11th Armoured Division's 'Bull' facing left and right, which may have been caused by such an error.

### The early RAC flash

This existed in two forms: a red/white/red horizontal bar which can be clearly seen on the Covenanter featured as the cover picture of January, 1969; or a white/red/white mark prominently displayed on the tank sides and turrets.

The white/red/white mark was first used in 1918 to identify our own tanks from captured British tanks used by the Germans, and the colours were in fact those of the Cavalry Corps. It re-appeared in North Africa in the early phase of the war in that theatre, and examples of its use are clearly shown on page 10

of Profile No 15 (the Matilda) and on page 15 of *British Tanks* by B. T. White (Ian Allan).

The red/white/red mark seems to have been little used in any war theatres in 1939-45, although it features frequently in photographs of tanks in the United Kingdom. As an identification mark it had outlived its usefulness by 1944 when all Allied vehicles displayed the familiar white five-pointed star.

### Vehicle numbers

Originally 'soft skin' vehicles had a prefix letter followed by a number in a series which had started at 'I' in 1920. The letters were straightforward—L for lorries, A for ambulance, V for vans, X for trailers and C for motorcycles.

This system was changed prior to 1939 and the first two numbers then indicated the year of entry into service. Z was the usual prefix for trucks, and M for staff cars.

Armoured vehicles had a separate numbering system starting from 'I' in 1919. At first, everything that was armoured, whether tracked or otherwise, was given the letter T, but in the mid-1920s, armoured cars were given F, tracked towing vehicles D (because of the 'Dragon' tractors then in vogue) and wheeled tractors, H. Pre-war, too, all vehicles had a conventional civilian-style road registration plate.

Throughout the war, T remained the general prefix for all tanks and carriers, although some oddities existed. Early Cromwell types (ie, Centaur and Cavalier), for instance, sometimes had L for Liberty-engine and M for Meteor, while some re-worked Churchills had W. Armoured cars usually retained their F prefix, as did wheeled tractors their H (cf, Airfix Tank Transporter and Matador); but SP guns on tank chassis, like the Sexton, were given S.

Since 1948, all military vehicles have followed a numbering system consisting of a two number—two letter—two number group.

### The Armoured Division, 1944

In the text of the previous article, I mentioned certain changes in the composition of the Armoured Division during World War 2, and this month, the full allocation of Arm of Service marks is given in Table 1. This list applies to the mid '44 period and was again amended about a year later.

### The Infantry Division, 1944

Table 2 gives the allocation of numbers for the Infantry Division and one can see immediately how different was its composition from that of its Armoured counterpart. It had three Infantry Brigades; there was an extra Field Regt RA (giving each Brigade its own Field Artillery Arm); and, significantly, the RAMC was more heavily manned. The Division had a Reconnaissance Regt (as distinct from an Armoured Recce Regt) which was equipped with armoured cars, carriers, half-tracks, 6 pdr A/T guns, and 3 inch mortars; and the OP vehicles of the Artillery were usually Universal carriers too.

I have drawn some more typical markings, this time with the accent on the vehicles of the Infantry Division, and included with them are two examples of the use of Formation and Arm of Service signs (other than on vehicles), both associated with bridges. Nederweert Bridge was constructed by Corps Troops, hence the 12 Corps Formation sign of 'Oak, Ash and Thorn', while the Wessex dragon on the Vernon Bridge shows that it was built by Wessex Divisional Engineers. Formation and Arm of Service marks were also frequently used as route markers.

The five-starred shield was the formation sign of Southern Command (UK) and was produced in various colours to suit all

Continued on page 361

Tables on opposite page

AIRFIX magazine

TABLE 1  
STANDARD VEHICLE MARKINGS FOR THE ARMoured DIVISION — 1944

Unit	Serial Number (Super-imposed)	Arm of Service Colour
* HQ Armd Divn	40	Black
Armd Divn Empl't Plat	40	Red/Blue
HQ Armd Divn, RA	80	Red/Green
HQ Armd Divn, RASC	40	Blue/Red/Blue
HQ Armd Divn, REME	40	Blue/Yel/Red
Armd Divn, Field Security Section	40	Black
HQ Armd Brig	50	Red
* Armd Regt	51	Red
* Armd Regt	52	Red
* Armd Regt	53	Red
* Motor Battalion	54	Red
* HQ Inf Brig	60	Green
Inf Brig HQ Ground Defence Plat	60	Green
Inf Batt	61	Green
Inf Batt	62	Green
Inf Batt	63	Green
* Armd Recce Regt, RAC	45	Green/Blue
* Field Regt, RA	74	Red/Blue
* Field Regt, RA	76	Red/Blue
* A/T Regt, RA	77	Red/Blue
LAA Regt, RA (see Note 3)	73	Red/Blue
* Field Park Sqn, RE	42	Cobalt Blue
Field Sqn, RE	41	Cobalt Blue
Field Sqn, RE	46	Cobalt Blue
Divn Bridging Troop, RE	52	Cobalt Blue
* Armd Divn, Signals (see Note 1)		White/Blue
Independ't M/G Company	64	Black
Armd Brig Coy, RASC	81	Red/Green
Inf Brig Coy, RASC	83	Red/Green
Armd Divn Troops Coy, RASC	84	Red/Green
Armd Div Transp't Coy, RASC	82	Red/Green
Light Field Ambulance	89	Black
Field Ambulance	90	Black
Field Dressing Station	93	Black
Field Hygiene Section	92	Black
Armd Divn Ordnance Field Park	97	Blue/Red/Blue
Armd Brig Workshop, REME (see Note 2)	99	Blue/Yel/Red
Inf Brig Workshop, REME (see Note 2)	100	Blue/Yel/Red
Armd Divn Provost Coy	43	Black
Armd Divn Postal Unit	44	Black
Armd Car Regt (Corps Troops)	44	Green/Blue

Notes: (1) Royal Signals adopt the serial number of the unit to which they are attached. (2) Each of the asterisked units (\*) had a Light Aid Detachment who wore the unit's number on REME colours. (3) The LAA Regiment had a Regimental Workshop attached displaying 73 on the REME colours.

SOUTHERN COMMAND (UK) — THE SOUTHERN CROSS TABLE 3

Unit	Shield	Stars
Command HQ	Red, black bar	White
RA	Divided vertically, left red, right blue	White
Royal Signals	Divided vertically, left dark blue, right white	White on blue, dark blue on white
RE	Red with blue diagonal bar, top left to bottom right	White
RAC	Divided vertically, left red, right yellow	Red on yellow, yellow on red
Infantry	Red	White
RAMC	Maroon	White
RASC	Divided vertically, left dark blue, right yellow	Yellow on dark blue, dark blue on yellow
RAOC	Red with central vertical black bar	White
REME	Divided on three vertical bars, left red, centre yellow, right dark blue	Dark blue on central bar, white on sides
Royal Military Police	Divided vertically, left red, right black	White
Dental Corps	Divided vertically, left green, right white	White on green, green on white
Pay Corps	Yellow	Blue
Education Corps	Cambridge blue	White
Pioneer Corps	Divided vertically, left green, right red	White
Intelligence Corps	Green	White
Army PT Corps	Black	Red
ATS	Dark brown with narrow green edging	Beech brown

TABLE 2  
STANDARD VEHICLE MARKING FOR THE INFANTRY DIVISION — 1944

Unit	Serial Number (Super-imposed)	Arm of Service Colour
* HQ Inf Divn	40	Black
Divn'l HQ Def & Empl't Troop	40	Black
HQ Inf Divn, RA	40	Red/Blue
HQ Inf Divn, RE	40	Cobalt Blue
HQ Inf Divn, RASC	40	Red/Green
HQ Inf Divn, RAOC	40	Blue/Red/Blue
HQ Inf Divn, REME	40	Blue/Yel/Red
HQ Inf Divn, Field Security Section	40	Black
HQ Inf Divn, Signals	40	Black, red numbers
* HQ Inf Brig	81	Red
Inf Brig, HQ Ground Defence Plat	81	Red
Inf Batt	55	Red
Inf Batt	56	Red
Inf Batt	57	Red
* 2nd Brig as above—87, 60, 61, 62—Green		
* 3rd Brig as above—94, 67, 68, 69—Brown		
* Recce Regt, RAC	41	Green/Blue
* Field Regt, RA	42	Red/Blue
* Field Regt, RA	43	Red/Blue
* Field Regt, RA	44	Red/Blue
* A/T Regt, RA	46	Red/Blue
LAA Regt, RA	47	Red/Blue
* Field Park Coy, RE	48	Blue
Field Coy, RE	49	Blue
Field Coy, RE	50	Blue
Field Coy, RE	51	Blue
Divisional Bridging Plat, RE	52	Blue
* Inf Divn Signals (see Note 1)		White/Blue
* M/G Battalion	64	Black
Inf Brig Coy, RASC	70	Red/Green
Inf Brig Coy, RASC	71	Red/Green
Inf Brig Coy, RASC	73	Red/Green
Divisional Troops Coy, RASC	72	Red/Green
RAMC Field Ambulance	75	Black
Field Ambulance	76	Black
Field Ambulance	77	Black
Field Dressing Station	82	Black
Field Dressing Station	83	Black
Field Hygiene Section	78	Black
Inf Divn Ordnance Field Park (see Note 4)	92	Blue/Red/Blue
Mobile Laundry and Bath Unit	52	Blue/Red/Blue
REME Inf Brig Workshop (see Notes 2 and 3)	88	Blue/Yel/Red
Inf Brig Workshop	89	Blue/Yel/Red
Inf Brig Workshop	90	Blue/Yel/Red
Inf Divn Provost Coy	79	Black
Inf Divn Postal Unit	80	Black
Divisional Battle School	81	Black

Notes: Royal Signals adopt the serial number of the unit to which they are attached. (2) Each of the asterisked units (\*) had a Light Aid Detachment who wore the unit's number on REME colours. (3) The LAA Regiment had a Regimental Workshop attached displaying 47 on the REME colours. (4) RAOC stores carrying section wore the number of the Infantry Battalion Workshop to which they were attached, on the RAOC colours.

SECOND BRITISH ARMY — JULY/AUGUST 1944 TABLE 4

8 Corps	12 Corps	30 Corps
11th Armd Divn	53rd (Welsh) Divn	7th Armd Divn
Guards Armd Divn	59th Divn	43rd (Wessex) Divn
15th (Scottish) Divn	31st Tank Brigade	50th (Northumbrian) Divn
8th Guards Tank Brigade		8th Armd Brigade

Typical Corps strength — 8 Corps on July 30, 1944

	Officers	Other Ranks
HQ VIII Corps & VIII Corps Troops	596	10,833
15th (Scottish) Division	829	16,141
8th AGRA	214	4,643
6th Guard's Tank Brigade	199	3,901
11th Armoured Division	715	13,788
2nd Household Cavalry Regiment	58	738
Guard's Armoured Division	730	13,670
The Inns of Court Regiment	55	765
Totals	3,396	64,479

Abbreviations used in the tables:  
Armd—Armoured; Empl't—Employment; Divn—Division; AGRA—Army Group, Royal Artillery; RAC—Royal Armoured Corps; Independ't—Independent; Brig—Brigade; Plat—Platoon; Transp't—Transport; Regt—Regiment; Coy—Company; Recce—Reconnaissance; Batt—Battalion; A/T—Anti-Tank; LAA—Light Anti-Aircraft; M/G—Machine Gun.



**FAMOUS FRENCH TANK  
SCRATCH-BUILT IN  
1:76 SCALE**

**By KENNETH M. JONES**

AS a companion to the Char B (see January issue), the Somua should help fill the gap for French tanks in 1:76 scale. The model is not easy, certainly not for beginners. The hull nose is particularly difficult to capture, even for experienced modellers. I definitely thought twice before I modelled it. Those who saw my first attempt at this model illustrated in AIRFIX magazine in July 1967, will certainly see the improvements in the second attempt.

The first model Somua I built was too angular, especially about the suspension covers and upper hull; compare the photographs. However, I wanted a Somua in my collection and, rather than not have a Somua, I built something which resembled it. This was better than not having one at all.

One thing I could say was that I had built it, even if the first attempt was not fully accurate. A word of advice to complete beginners here; try to build your models as accurately as possible but do not be deterred by other modellers' criticisms. Better to have a model with a general appearance which resembles the



prototype, than to dismiss a tank as too difficult to make. Accuracy will come with experience as you progress, so do not give up hope if your first attempts are not quite right; just say to yourself 'I built it'.

Turning to the model itself, commence with building the underpan. As is usual the recommended thicknesses of the plastic card are shown on the exploded view and will not be repeated in the text.

The bogie wheels are from the Airfix Churchill. Space these from the hull sides, positioned between two formers. Only one wheel is actually required as the road wheels are not very prominent when the track and suspension covers are in place. The idler and sprocket come from the Airfix JS3, but there should be other road wheels or sprockets to suit. This is where the well stocked scrap box is so useful.

The curved covers over the suspension units are easily bent up from plastic card. Emboss any rivet details required before forming. The butting joints can be easily represented by Microstrip if you have any available. If necessary half round formers may help to position the covers on the hull side.

The upper hull is the most difficult part of the model in my estimation. The nose can either be formed from laminated plastic card, moulded from sheet as on my model, or carved from balsa block. Use which ever method you find easiest. To achieve the rounded cast effect of the hull, use thick plastic card (at least 40 thou) for the sides and top. This can be sanded to shape later when completely dried out. The rear hull decking is formed by the same methods. Study the plan before commencing. The grills over the engine are made up from Microstrip. Take time and care to obtain a good finish, I must stress this point regarding all upper-works on the vehicle.

The various doors and hatches are quite prominent on the hull sides, so do not make the mistake of going for a flush fitting effect. The hand rails are well worth producing correctly; they are of a type more commonly found on railway engines. If you have some (or can find a shop selling) railway modelers' 00 scale hand rail knobs, these are ideal. They may appear a little over scale

**Below:** Ken Jones' first somewhat simplified model of the Sonua. **Bottom:** The second more accurate model, also shown in the heading picture.

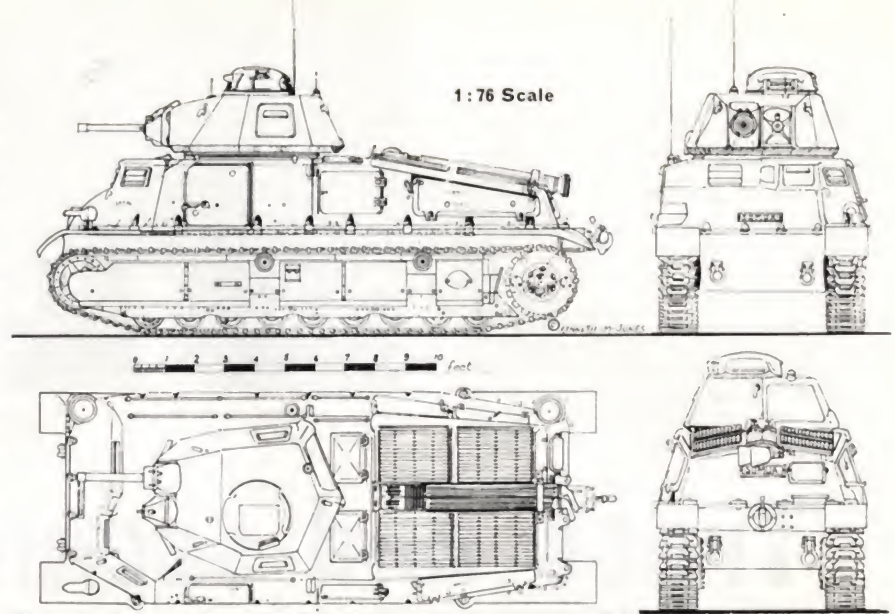


but not too much to mar the appearance of the model. Triangular storage boxes were sometimes carried on the hull offside. Although not shown on the drawing, their make up can be determined from photographs.

Exhaust pipes are from sprue or any dowel of the correct diameter you have available. The fish tale outlets are from shaped plastic card scrap.

The turret to say the least is unique in its shape. It can be carved from balsa or laminated from thick plastic card. It will also mould easily from plastic sheet. I built mine up face by face from 40 thou sheet, a tedious and most unsuitable method. Still it can be done the hard way, but I would not recommend this method to anyone. Advanced modellers should find no difficulty in producing the turret. Note that the turret side wall forms outwards into a gentle 'vee' shape to take the cupola ring, and the sides are not symmetrical. The cupola is best constructed from laminated plastic card to obtain a smooth finish, as it is a small part.

The Germans used captured Somua's in limited roles. I believe that they modified the cupola amongst other things by cutting away the top and



substituting a split hatch. So if you model the captured vehicle obtain plenty of photographic evidence for the modifications first.

The track can be modified from the Airfix Sherman kit. Cut away the double row of teeth first. Alternatively use the Airfix StuG III track as on my model, I think it is the better of the two.

Again cut away the teeth before fitting.

I painted my model dark earth and green with patches of sand all mixed from Humbrol paints. I prefer to mix my own colours from the Humbrol range rather than use ready mixed paints. Keep your colours matt and add grimy patches around the engine covers, and exhausts pipes, etc.

**Army markings—from page 358**

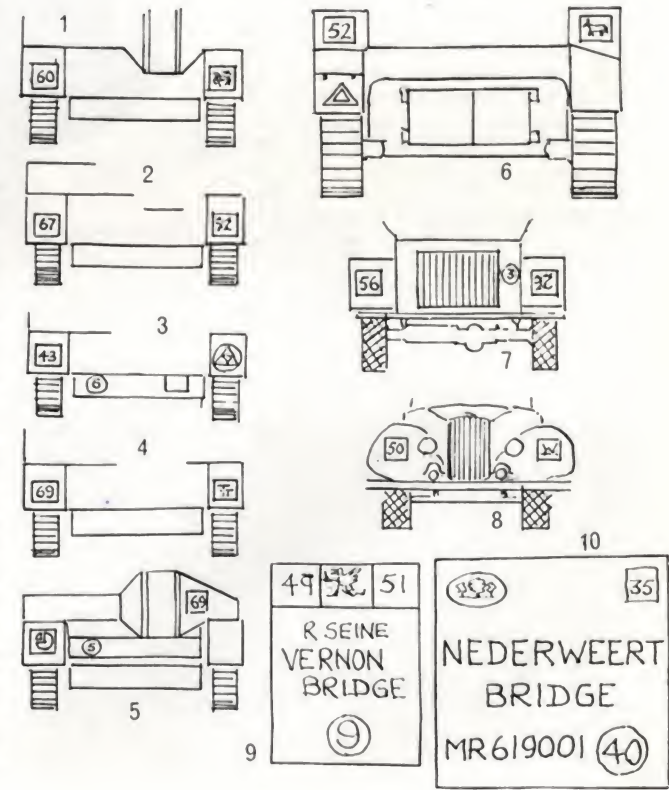
Arms of Service. It was divided vertically as well as horizontally, depending on the Arm of Service; Table 3 gives the complete list. The shield-shaped badge was worn on uniform; on vehicles it was usually rectangular and had four stars in the vertical limb of the cross.

Finally, for readers who are not familiar with Army formations, I have shown in Table 4, the composition of the 2nd British Army in July/August, 1944. This Army, together with the 1st Canadian Army, formed 21 Army Group, whose number was taken from the British '2' and the Canadian '1'.

Several points are worth commenting on in Table 4. Notice that the composition of Corps was flexible, and also that each Corps had an Independent Armoured or Tank Brigade attached for the close support of its Infantry.

In the break-down of a typical Corps, the reader can see the relative strengths of a standard regiment, an armoured and infantry division, as well as an AGRA and a brigade. Notice, too, the great number of Corps Troops. Like the divisions, the Corps also had a standard numbering system with which I hope to deal in a future article on this subject.

**Key to marking examples:** (1) *Carrier of HQ 159 Inf Bde, 11th Arm'd Divn.* (2) *Carrier of 7th Bn, Somerset Light Infantry, 214 Inf Bde, 43rd (Wessex) Divn.* (3) *OP Carrier of 33rd Field Regt, RA, 3rd Divn.* (4) *'Wading' Carrier of 1st Bn The Dorsetshire Regiment, 231 Inf Bde, 50th Divn.* (5) *Carrier of 2/4th Bn The Hampshire Regt, 28 Inf Bde, 4th Divn.* (6) *Priest Kangaroo of Royal Wiltshire Yeomanry, 9th Arm'd Bde (rear view).* (7) *Bedford truck of 4th Bn The Wiltshire Regt, 129 Inf Bde, 43rd (Wessex) Divn.* (8) *Humber car of 2nd Field Coy RE, 53rd (Welsh) Divn.* (9) *Signboard of Class 9 bridge erected over River Seine at Vernon by two field companies RE, 43rd (Wessex) Divn.* (10) *Signboard of Class 40 Bailey bridge over Zuid Willems canal constructed by 12 Corps Troops engineers.* (11) *Formation sign of Southern Command, three typical divisions of the shield.* For 'arm of service' colours in drawings, see tables on page 359.





WORK on the narrow gauge layout described in the October, November and December 1968 issues of AIRFIX magazine took a back seat when Airfix released the 'Battle of Britain' locomotive kit recently. However, the acquisition of a quantity of the newly introduced Playcraft narrow gauge points was the signal to resume work.

It was decided to modify the chosen track plan slightly, Plan B described in the October issue. After some experience of testing these small size locomotives it was apparent that perfect electrical contact between the rails and



The first corner of the layout completed; this is the top right corner of Plan B given on Page 55 of the October 1968 issue. Hill and tunnel is from Mod-Roc over expanded polystyrene, as described here.

## Track and scenic work

### CONTINUING WITH THE NARROW GAUGE LAYOUT

the coupled wheels was essential if reasonable performance was to be maintained. After careful examination of the one Playcraft locomotive in my possession it was found that all four wheels were not touching the rails and this was responsible for intermittent performance around the curves in one direction.

On releasing the body from the chassis, which is easily done by unscrewing the chimney, it was discovered that the two side frames are in fact metal pressings which clip to the plastic supports for the brush gear on the electric motor. A slight leverage with a small screwdriver forced the offending frame back into line and all four wheels sat squarely on the ground. This improved the performance and reliability of the locomotive on ordinary straight and curved track but the dead frogs on some points were enough to stop the locomotive in some instances, especially when travelling at slow speeds. This convinced me



BY **NORMAN SIMMONS**

that it would be preferable to install all the pointwork in the open in full view and that points in tunnels (at least in narrow gauge) should be avoided.

Careful work on the points with fine file and emery paper to rub down any undulations in the track and careful cleaning of the wheels and rails can help. To simplify matters, and not wishing to make trouble for myself, I cut out the reverse loop shown on the original Plan B and brought the junction between the high level terminus and the low level continuous run into the open.

Though I had not designed the layout at the outset with Playcraft track in mind, it was found perfectly possible to make use of standard Playcraft track parts with very few modifications. Playcraft produce one-third length straight and curved rails which match the length of their points and these were used to good measure. Where non standard length rails were required these were easily obtained by cutting the Playcraft rails to the required length with an Eclipse Junior hacksaw. The Playcraft rail-

*Continued on page 364*

Below, left: Method of track laying showing card track bed and ballast. Right: General view of the corner with track and scenic work in hand. Note the wiring completed before scenic work begins. Ballast is not laid on concealed tracks.



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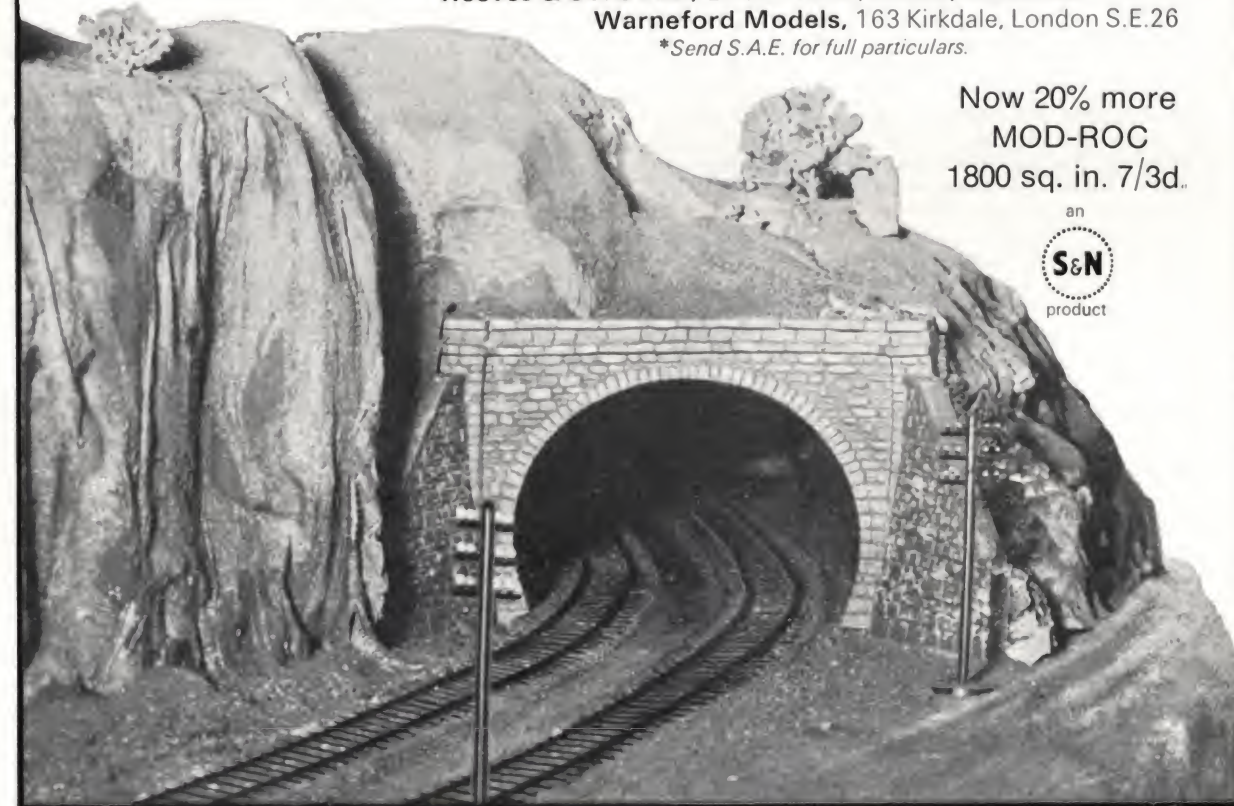
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## Railway Modelling—continued

joiners can be removed easily with a pair of pliers and where additional rail joiners are required the Peco N/009 variety are perfectly suitable.

Peco insulated rail joiners are of course essential where isolated sections are needed which leads me to another point. Plan all your isolated sections and electrical wiring before you start laying the track. It is far easier to saw through rails and solder electrical connections before the track is laid. I made provision for isolating all the sidings and either tracks of the two reversing loops. Special attention was paid to the locomotive siding so that two locomotives could be stored together. The wiring is not complete at the time of writing but whenever it was found necessary to lay wiring under nearby trackwork this was done when the track was laid. The Playcraft points are fitted with point motors for remote control but on a small size layout such as this I hardly thought it was worth the bother wiring them up. Manual operation is in any case rather more leisurely and acceptable on such a small layout.

At all times before the track was laid each section was given a thorough test under power and with different types of rolling stock to make sure what, if any, adjustments were required. It was found necessary to examine the rail joints thoroughly and they were improved in a number of different ways. For example, some of the rail joiners butted against the sleepers thereby preventing close connection between the rails. This was easily remedied by filing away the tips of the rail joiners. The rail joiners were also examined to ensure they were straight and level as several were found to be otherwise, causing undulations in the track at the rail joints. Some of the rail ends were buried over and these were improved with a file.

Before laying the track a track bed consisting of strips of thick card was glued to the baseboard. It was hoped this might cut down the noise but it is doubtful whether it achieved this purpose. However, it will permit easier removal of the track if at any time it becomes necessary to lift it. The cardboard can be peeled away much more easily than if the track was laid direct on the plywood base. The cardboard came from stiffeners used in packing new shirts—I had been saving them for years! The card track bed was given a generous coating of glue—I find Casco (not Cascamite) cold water glue suitable—the track pinned in place and the whole



A close up of the tunnel and hill showing the Mod-Roc banking with scenic dressing applied, and the polystyrene ceiling tile forming the tunnel roof.

lot sprinkled with cork ballast which can be bought in any model shop. The ballast was lightly pressed home and after an hour or two the surplus was brushed away—I find an old shaving brush long past its prime suitable for this and many other dusting operations. Don't blow the cork ballast or you'll have cork ballast all over the room!

Where the rails meet at the top of the incline leading to the hinged high level section the ends of the rails were carefully soldered to pins driven into the baseboard. Needless to say this is a critical point in the trackwork but I am glad to add that in my case all my rolling stock traverses this break in the rails faultlessly despite the fact that it occurs at the top of a gradient and immediately prior to entering a sharp 11 inch radius curve. One of the points installed in the low level loop which is approached by a sharp curve was found to cause trouble to locomotives approaching via the curve. This was cured by laying a simple check rail along the inside edge of the curve. The check rail was nothing more than a strip of 20 thou plastic card cemented to the sleepers. I have only found a check rail necessary in this one place, but it looks authentic and I am thinking of installing more.

With the important part of the trackwork in place it was a pleasure to turn my attention to the scenery, beginning with the hill and tunnel behind the station yard. After the main line leaves the station it curves through 180 degrees round an 11 inch radius curve and plunges down a gradient of about 1 in 12. Even by narrow gauge standards this rapid change in geometry is hardly prototypical and it is just as well that these sins are hidden by a tunnel. I hasten to add however that the locomotives seem to survive quite happily on this sort of treatment. I found Mod-Roc and expanded polystyrene ideal materials for creating the hillside and tunnel. The expanded polystyrene is extremely light—in fact practically weightless—yet it is rigid and retains its shape. The Mod-Roc

covering protects the relatively soft surface of the polystyrene and prevents the exposed areas from being worn or flaked away. Various sources for the expanded polystyrene were found. The Playcraft train set packing provided a substantial quantity and the tunnel mouth was built from small blocks which came originally in some packing material for hi-fi equipment. Finally a ceiling tile, from a 'do-it-yourself' shop, which cost the princely sum of fivepence, provided just the right thickness of material required for the tunnel roof.

Cutting the expanded polystyrene makes a devil of a mess! In February when I was doing this work it was snowing at the time. There was very little difference between indoors and outdoors by the time I had finished but I am glad to say a vacuum cleaner soon sucked the indoor 'snow' away. It might be useful to bear in mind this material for snow scenes. I found a bread saw the ideal cutting medium for long lengths and large areas but a really sharp craft knife was all right for the smaller pieces. I used Copydex adhesive to glue the pieces together and to the baseboard and found this ideal. After the glue was set the bread saw and craft knife were used to landscape the hill and carve out a space for the Airfix platelayer's hut.

Next came the covering of Mod-Roc. This is excellent material to work with and it really is quite fun to use. It comes in strips about 2 ft 6 inches long and 5 inches wide and in appearance it is very like bandage material impregnated with Plaster of Paris powder. The material is applied after first soaking for 4 or 5 seconds in water, the surplus water should be drained off and then the material draped over formers. The formers can be expanded polystyrene or simply damp crumpled newspaper. I used both types and found them satisfactory but the polystyrene came in useful when it was necessary to keep a clear space for the track running below.

Mod-Roc begins to dry very quickly but it can be worked for two or three minutes which is long enough in most cases. The area I had to cover was not very large so I chose to cut each 2 ft 6 inch strip into four or five pieces. The pieces were overlapped at the edges and a second layer was laid cross-ply. The material dries rock hard and appears to be very tough. To finish the scenery the whole of the hill was painted earth brown—Humbrol track colour is ideal and I have a large ½ pint tin which does for just about everything—and sprinkled with different coloured scenic dressings and lichen for hedges and bushes.

AIRFIX magazine

# Sopwith Pup

SIMPLE CONVERSION COMBINING  
TWO OTHER KITS  
BY ALAN W. HALL



The Sopwith Pup which is preserved in flying order by the Shuttleworth Trust. Note the small generator propeller on the centre struts which can be added on the model.

THIS conversion combines two existing kits of different aeroplanes to make a third. Taking the fuselage and undercarriage of a Revell Sopwith Triplane and combining it with the wings and struts of an Airfix Camel I have been able to produce a Pup. Add a little plastic card here and there, rig the wings and in a comparatively short time an almost perfect model can be evolved.

This conversion was a pleasure to do. Personally I have a preference for biplanes and this one is, to my mind, one of the best. The Pup was always regarded as the 'pilot's aeroplane'. The Camel was a vicious little brute to those who didn't understand it but its predecessor had gentler characteristics. The Pup was chosen to be the first aircraft to make a deck landing at sea, McCudden achieved many of his victories on the type, and it was universally agreed that the Pup was the most pleasant to fly of all the British aeroplanes in the 1914-18 war. As many visitors to the Shuttleworth Trust at Biggleswade will agree, the Pup also has a very attractive appearance as one is still preserved there and flies whenever conditions allow.

There were a few problems in the construction of this conversion. The major task is overcoming the increase in chord of the Pup's wing over the Camel but this can be done fairly easily given a degree of patience.

For reference I found nothing better than the real thing and having taken a number of photographs of the Pup at flying displays and at its home in Bedfordshire I was able to use this knowledge to advantage. Alternatively there is a good plan and a number of useful photographs in the Harleyford publication *Fighter Aircraft of the 1914-1918 War*, Bruce Robertson's *Aircraft Camouflage and Markings* has references, and Profile No 13 contains a lot of illustrations including some very exotic paint schemes.

Although I do not like to advise modellers to use odd parts from a number of kits in order to make one model—due to the cost involved—I feel that this conversion which uses two inexpensively priced kits is not likely to bankrupt even the most impecunious. Even if it means buying paint and plastic card as well the total cost of this Pup conversion will not exceed ten shillings.

**STAGE 1** The Triplane fuselage halves have their interiors painted a dark greeny-brown and stuck together. Then paint the Triplane engine black and install this complete with cowlings. When dry, the join lines are first trimmed with a sharp knife and then given a polish with wet and dry paper taking care not to remove the ribbing from the top line of the fuselage.

**STAGE 2** The Airfix Camel's wings are then cut to fit the plan. It will be noticed that the angle of the tips is different in the Pup from those of the Camel and the alteration was simply done by sawing off the bulk of the excess plastic and then shaping with a knife to fit. A polish with sandpaper can then be given. The original locating slots for the wing struts should be plugged with plastic putty at this stage and sanded smooth.

**STAGE 3** Then cut ¼ inch off the trailing edge of each wing and cement a length of plastic card in place to make up the correct chord. The trailing edge is removed to allow a reasonable thickness on which to cement the plastic card and at the same time give enough surface on which to work. Now choose which model, RNAS or RFC, you intend to make. The hole in the top wing is then filled for the RFC version with another piece of plastic card slightly thicker than the depth of the wing so as to allow plenty of room to rub the new piece down to the section required later.



Above: Stages 3 and 4, the modified wings, are illustrated here as is the new tailplane with ribs from transfer strips, Stage 6.

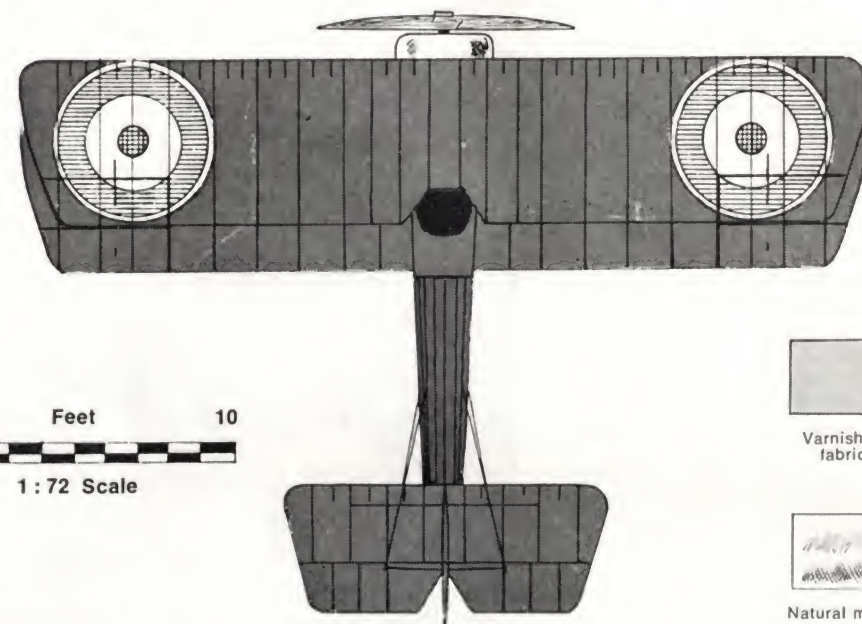
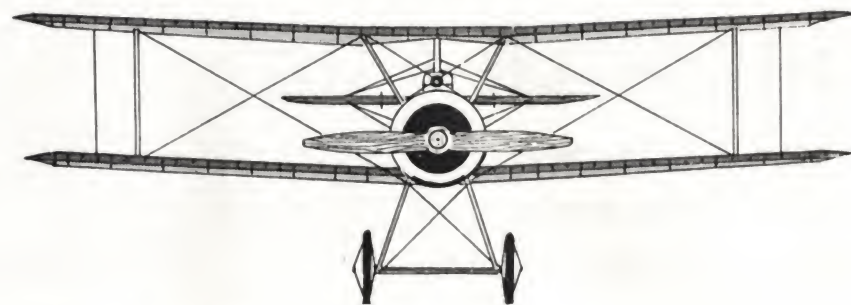
**STAGE 4** After the modified wings have been allowed to dry thoroughly, and by this I mean at least a day, not an hour, use an oval section file to shape down the plastic card extensions to match the existing wing ribs. This is perhaps the most difficult job of the whole conversion. The filling must be done carefully or otherwise the join will show up badly. Both upper and lower surfaces of both wings are given the same treatment. A final task is to mark the new positions of the wing strut locations on the wings, by reference to the plan. Then drill them out, though you could simply cement the struts in position later if desired. New locating holes are also necessary in the Triplane fuselage.

**STAGE 5** When the ribs are shaped completely the ailerons are cut out, given a slight rounding with sandpaper where they join the rest of the wing and stuck in place again. The wing dihedral also receives some attention as it is more pronounced than on the Camel. To do this I immersed each wing in very hot water and carefully bent each to the correct angle. The lower wing is then attached to the fuselage. To do this a cut will have to be made in the fuselage to move the wing leading edge forward. To avoid overdoing it I took a section out of the leading edge of the wing and also from the underside of the fuselage. Slight alterations will also have to be made to the angle of attack of the wing because this also differs from the Triplane. A few deft cuts with a sharp knife will put things right. To complete the wing attachment a thin piece of balsa is stuck to the underside of the wing to make up the fuselage depth and plug the

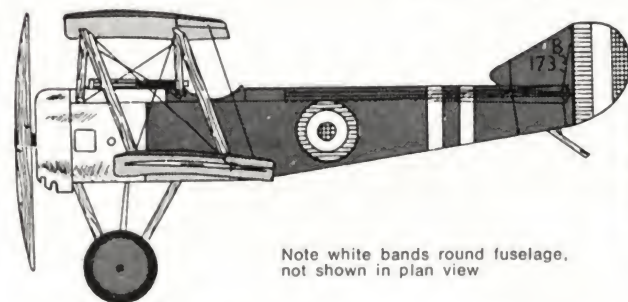
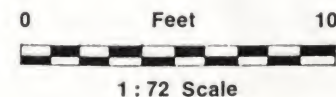
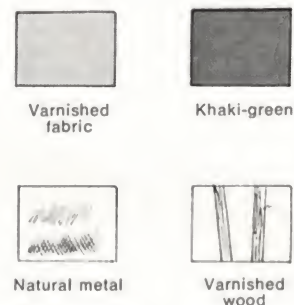
Continued on page 367  
Scale drawings on next page



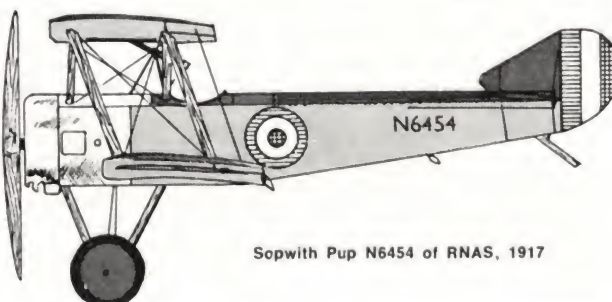
Drawing by Richard E. Gardner



Note Vickers gun  
on RFC machine  
with no cut-out  
in upper wing:  
RNAS aircraft has  
Lewis gun and  
cut-out section



Note white bands round fuselage,  
not shown in plan view



Sopwith Pup N6454 of RNAS, 1917

## PAINTING AND MARKINGS

Humbrol Authentic RFC Green HB15 and Clear Doped Linen HB16 were the basic colours used though I added one part white to six of the latter as I believe this colour to be too dark when taken straight from the tin. The struts and prop were painted with Humbrol gloss brown with a touch of yellow added and varnished when dry. The wheels, gun and engine were matt black. If making the RFC version shown in the plans, the Airfix Camel transfers will do at a pinch but it is better to find roundels of slightly superior quality if one wishes to be more accurate. The spare transfers box provided mine which I believe came from the Revell Camel originally. The serial was made from Letraset on my model.



## Sopwith Pup—continued

hole at the rear of the wing where it meets the fuselage. An application of filler and some more polishing with sandpaper when this is dry completes the job.

**STAGE 6** While waiting for the wings to dry out I paid attention to the tail unit. Here both the tailplane and fin and rudder are different from either the Triplane or the Camel and both units will have to be made from plastic card. After taking a tracing from the plan I cut out both using a sharp knife and scissors. Sandpaper and files are used to get the aerofoil section and then the ribs are added by sticking on very thin strips of transfer. I described in detail how this can be done when converting the Airfix kit of the Auster in the June 1968 issue. Clear varnish is used as an undercoat before putting the transfer in place, as this adds to the adhesive qualities of the transfer and allows the eventual result to be rubbed down gently when dry. The fin and the elevators are cut off after this has been done, given a rounded edge where they meet the remainder of the assembly, and re-cemented in position. I removed the locating stub on the Triplane fuselage, cut a  $\frac{1}{8}$  inch extra depth forward on the top of the rear decking to take the increased chord of the new tailplane and cemented both this and the fin and rudder in place.

**STAGE 7** The undercarriage was next added after the wings had been set in place. This varies little from the Triplane unit apart from having a slightly narrower track. To achieve this I simply discarded the axle and cut one of my own from stretched sprue to fit the desired width. The wheels, although painted, were not attached at this stage.

**STAGE 8** Having previously drilled new locating holes for the struts, on the Camel's wings and Triplane fuselage I now checked that all the struts fitted. The Camel struts are used though they have to be adjusted slightly in angle and height. Each strut was glued in position and left to dry out thoroughly. Then I added the two 'V' struts which formed the supports for the Lewis gun on the RNAS version, tipping the Camel's gun in place so that it came

*Below: The main painting is completed before the upper wing is added. Note Lewis gun mount for RNAS aircraft. Completed model is seen on opposite page.*



**Top:** Fitting the wings and undercarriage, Stages 5 and 7. Note how original ailerons are filled with plastic putty. **Above:** Method of heat-stretching sprue for rigging wires.

centrally through the slot in the upper wing which was used to get the position right.

**STAGE 9** At this stage I did most of the painting. I feel it important to adopt this method with biplanes as it is very difficult to get a brush accurately between struts when the top wing is glued in position. Providing the locating holes for the top wing are kept clear of paint there is no reason why, with care, this method should not result in a more attractively finished model. Details of paints used can be found opposite.

**STAGE 10** With the painting complete and dry the top wing is stuck on and again left for a few hours to ensure that the glue has dried out. The wheels can be added and then bracing wires. For these I heat-stretch sprue over a candle flame into fine filaments and measure off the desired length of each wire with dividers. The sprue is cut one piece at a time and stuck into position. Glue is applied in very minute quantities on the end of a cocktail stick and the wire put in place using tweezers. I also cut a windscreen from acetate sheet at this stage and cemented it just forward of the cockpit coaming. By fitting the propeller in place the model was complete apart from markings.

## Military Modelling—from page 343

heads and points) and cement in place with UHU or similar adhesive. For a Male tank, the sponson must be made from plastic card, but in the April 1968 issue I illustrated and described a simple way of chopping up the Mark I sponson from the kit to make a passable Mark IV/Mark V type sponson.

All other fittings are optional. An obvious addition is the unditching rail and beam as on my model, but many Mark Vs were not so equipped, and these rails were, in any case, discontinued and removed in September 1918. Strictly speaking, the unditching rails on the Mark V curved outboard of the rear cupola but I simplified this by cementing them to the outer upper edges of the cupola instead. It makes a far stronger structure for handling and the 'cheating' is hardly discernible except on very close inspection. There were two supports midway between the two cupolas, one each

side, and two further supports were angled aft and outwards from the rear edges of the after cupola at about 45 degrees. They could also be omitted in this small scale, though I fitted them on my model. Use Microstrip (or sliced plastic card) for these rails and supports. A length of  $\frac{1}{8}$  inch stripwood makes the beam with miniature anchor chain to depict the securing chains. One final touch which adds character is the signal mast with semaphore arms.

Most Mark Vs had the white/red/white recognition marks on the front horns and cupola tops, introduced in June 1918 after the Germans had started using captured British tanks. The red portion is very quickly added from red Blick sheet BOE 60 after the necessary areas have been painted all white. Blick sheet BOE 59 provides the company lettering and numbers, being most handy in style for World War I tank models.

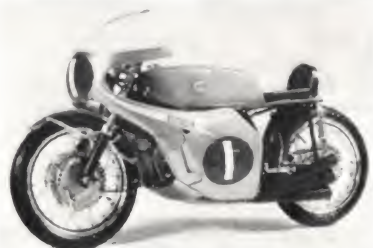


# NEW KITS AND MODELS

## PROTAR HONDA 'SIX'

THIS is a beautiful new addition to ex-motor cycle racing Tarquinio Proveni's range of large scale kits. In 1:9 scale, the finished model measures just on 8½ inches in length with the streamlined nose cowl removed, and embodies all the external detail of the real machine.

This 250 cc six-cylinder Honda was used in World Championship-qualifying events in 1966 and '67 by Mike Hailwood until the extremely successful Japanese manufacturer withdrew from motor cycle competitions at the beginning of last season. The six-cylinder engine, complete with one carburettor to each 'pot' and six bunched megaphone exhausts, is mounted across the lightweight frame, and the Protar kit includes basic engine 'castings' moulded in the correct shade of steel-grey plastic, bronze rocker covers and carb bodies, and translucent plastic intake trumpets just as on the real thing. All electrical, fuel and



brake leads and cables are depicted by the use of small-bore plastic tube, and an excellent feature is the very well detailed moulded rubber 'chain' driving to the anodised chrome rear sprocket and wheel.

Accurately-treaded Dunlop tyres are reproduced and working suspension, with steel coil springs, is provided both fore and aft. The front wheel is fully steerable by the rubber-gripped handlebars, and a nice touch is the semi-demountable front cowl with its built-in racing screen and oil radiators, joined to the engine by rubber hosing. Hardly any painting is required unless one really wants to obscure some of the moulding marks, a fault which particularly mars the cowl, and a reasonable transfer sheet includes racing numbers, yellow 'Honda' side flashes and badges and a face for the large diameter rev counter which mounts ahead of the handlebars.

A small frame stand is provided to support the completed model which, in fully assembled form, is really very impressive.

The kit itself is well-conceived and extremely well executed although one feels

that there are some companies about who could have made a better job of some of the mouldings. The instructions are rather involved and difficult to follow simply, but reference to the drawings provided usually solves any problems. Like any good plastic kit, assembly can be made quite successfully just by using good common sense. Part numbers are stamped into the moulding sprues, however, and this is a very good point, aiding location no end unless one has a working knowledge of the original motor cycle. Our sample was supplied by the importers, Motomodelli, 52 Wells Park Road, London SE 26. Price is 63s.

D.C.N.

## TRANSFERS FROM STOPPEL

SHEETS No 27 and 28 from the Danish 12 decal manufacturers Stoppel have recently arrived for review and are of United States national insignia. Stoppel now has many countries covered on his useful 8 inch by 5 inch sheets and each shows a good standard of research. All of the sheets are gloss printed but have excellent adhesive qualities.

The latest additions are separated into sections covering 1917-1943 and 1943 onward and feature on average nearly 50 markings on each sheet. The blue and white parts of the national insignia are printed together whilst red bars and centre dots are given separately. This enables the modeller to produce any variation on the US markings since World War I. The colours are accurate. The only criticism we have is that the bars on the small Viet-Nam type markings are difficult to apply as they are so very small. It is perhaps a pity that Stoppel could not have printed separate sheets for the two wartime and post war markings in this section though accuracy in registration is an understandable problem and several other manufacturers have side-stepped the issue leaving this to the individual to achieve.

Another recent issue from the same manufacturer is a sheet containing markings for Brazil, Egypt, Pakistan and Saudi Arabia. One stockist who always has a reasonable supply is Modeltoys of Portsmouth who supplied our review samples. Price is 3s 6d a sheet.

A.W.H.

## FOUR FROM REVELL

THE four latest kits from Revell which were first shown at the Brighton Toy Fair in January are now on general release. These include two 1:32 scale aircraft—a Zero and a Bell UH-1D Iroquois—and two at 1:72 scale—a PBY-5A Catalina and a CH-54A Skycrane.

With their continuance of 1:32 scale

Revell are setting high standards in kit manufacture and of course detail in moulding. Both the Zero and the UH-1D are superb models and feature all that one could possibly wish for. The latter is perhaps the better of the two and contains a very accurate representation of the instrument panel of this aircraft plus considerable detail in the rotor head. Construction of both is reasonably easy and care can be given to painting the detail before assembly without too much difficulty because the parts are relatively large. Four alternate armament systems are provided for the UH-1D,



either rockets, SS 11 missiles, machine guns or 7.62 mm mini-guns. Well presented instructions are provided with the kits but no details are given of the origin of the markings.

The Zero has a removable engine cowl and a lot of excellent detail in the cockpit. We did not like the pilot figure though this need not be added. Perhaps it is surprising that this kit does not have more working parts. The undercarriage for example can either be fixed in the retracted or lowered positions and the ailerons, elevators and flaps are not separate units. Both these 1:32 scale kits cost 15s 6d.

Of the two 1:72 scale models the obvious choice for most enthusiasts will be the Skycrane. This model, which has 113



parts, in addition to the transparencies, is surely the delight of the gimmick-minded manufacturer. This kit for example has either a mobile field hospital or a 105 mm howitzer as cargo loads for the aircraft and in the latter case the gun can be made to ascend or descend from under the fuselage by turning the rotor blades. Considerable attention has been given to the difficult job of reproducing the exposed and uncowed engine of the real aircraft and Revell's mould makers have done a good job. Rivet detail on the rest of the kit is inclined to be

Continued on page 370

AIRFIX magazine

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L.T.V. Corsair II	1/72	7/6
G. A-6A Intruder	1/72	9/6
A. Shackleton MR.3	1/72	19/11
G8N1 Renzan (Rita)	1/72	22/6
H8K2 Emily Pboat	1/72	32/6

FUJIMI		
Sud Alouette III Hel.	1/50	16/6
W. Wasp Hel.	1/50	13/6
A-4E Skyhawk	1/50	17/6
B.A.H.-1G Huey Cobra	1/50	15/6
F-8D Crusader	1/70	13/6

REVELL		
PBY-5A Catalina	1/72	13/9
Sikorsky S-64 Hel.	1/72	13/9

NICHIMO		
S. Spitfire Vb	1/72	5/11
AS4M Claude	1/72	5/11

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No. 4. Spitfire Mk. I to XVI in RAF, RAAF, SAAF, RNZAF, RCAF and Foreign service.

No. 5. Curtiss Kittyhawk Mk. I to IV in RAF, SAAF, RAAF, RNZAF, RCAF, and Foreign service.

Aircam Battle of Britain Special, featuring the Spitfire, Hurricane and ME Bf109. 16 Colour drawings plus 24 pages of black and white drawings giving complete details of all markings and stencilling.

Excellent mainly photographic publication by Uwe Feist, Panzerkampfwagen V Panther. Price: 35/-, postage 1/-.

How to do Plastic Modelling, by the editor of Airfix Magazine 25/- .1/6 postage.

GOOD SELECTION OF AERO ARMOUR SERIES OF BOOKS, 23/6 each, 1/- postage.

Fifty Famous Tanks, 12/6, postage 1/-.

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Porsche Carrera 910

Honda F.1

Lotus Ford 49

1/12 126/-

1/12 75/-

1/12 75/-

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Type 61 Jap Tank

Stalin Tank

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Jagdpanther V

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1/50 14/11

1/50 14/11

1/50 14/11

1/50 14/11

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## IMA1 motorised

Douglas Dauntless

JU-87B

Aichi Type 99 Val

1/50 14/9

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## New Kits—continued

a little oversize but this does not detract from the accuracy. A good kit well thought out and produced.

The Catalina on the other hand comes as a disappointment in view of the fact that Airfix already make a very good example of the same mark of this aircraft. Why Revell could not have brought out a different version only they can say, but it is a shame that this kit does not offer any alternative to what is already available apart from the US Navy markings.

Apart from this obvious criticism the kit is an excellent one. With 79 black moulded parts it has a wealth of detail and is accurate. If it were the only one on the market we would have raised three hearty cheers. These kits each cost 13s 9d. *A.W.H.*

## BRITANNIA REVIVED

THE 1:96 scale kit of the Bristol Britannia put out by Frog about ten years ago has recently come to light again in new markings in an 'unbranded' package. This time it has Royal Air Force Transport Command insignia for aircraft XL637 of No 99 Squadron.

In its day, this kit was by any standards one of the best on the market. Its detailing was superbly clean and, although there were minor inaccuracies it made up into an excellent model along with a Comet 4, Caravelle, Vulcan and Victor in the same range. Unfortunately the model depicted in the kit is not the same as that used by Transport Command. This version has a longer fuselage which becomes evident when looking at the transfer sheet with the revised model as the number of fuselage windows is wrong.

It is a pity that the manufacturers have not taken into consideration these simple points. Basically the kit is a very good one and at 10s 9d is good value, but discerning modellers will not be able to use the good transfers supplied and will need to find a finish applicable to a short fuselage Britannia. Our sample came from Ernest Berwick Ltd, 11a Newland Street, Kettering. *A.W.H.*

## OTAKI HONDA S800

THE Japanese plastic modelling industry is renowned for its superbly-detailed, wonderfully conceived and exquisitely executed large scale models, and this one fully justifies its parentage. This 1:12 scale replica of Honda's production sports car goes together extremely well, with no flash to be trimmed from the parts, is motorised—on a free-running principle—has working headlamps, and opening doors, bonnet and boot-lid and steerable front wheels.

The little Mabuchi motor which is provided with the kit fits actually inside the scale gearbox casing, driving from there back through a propeller shaft in the same manner as the prototype to a miniature 'differential' in the back axle housing. Drive is then taken from there via half shafts to the rear wheels. Batteries are carried in a special box mounting in the model's boot, and an on-off switch pro-

trudes unobtrusively beneath the boot floor. Wired in with the motor are two pea bulbs behind accurately-sculptured headlamp lenses, and the overall effect is most pleasing.

There are well over 200 parts in this kit, moulded in black, red (body), silver-grey (mechanical), anodised chrome and transparent plastic. The sprues are numbered and all parts are simply located in this way, while among the other bits and pieces included in the necessarily expensive selling price are not very good solid rubber tyres, cement, the motor, wiring and bulbs, a metal instrument panel (a very good feature), and metal axles, nuts and bolts etc.

But the most attractive part of this model is the beautiful fit of everything, the doors slot neatly into place fitting snug in the body cut outs, yet open and close smoothly but firmly on their robust hinges. Only the boot lid looks to be hinged clumsily, with cut-outs to be obscured in the top of the body shell.

Again, this is a Japanese kit that's difficult to fault, for although our knowledge of Japanese is not very large, the well-illustrated instruction sheets demonstrate every move with little need for an English translation—although one would be useful.

For the automotive enthusiast, this is a kit to look for and save for. Our sample was supplied by BMW Models Ltd, 329 Haydens Road, London SW19, who hold stocks. Price is 95s—excellent value for a model of this large size. *D.C.N.*

## MARUSAN KITS

THE Japanese manufacturer Marusan have recently added an Me 109 and a Spitfire IX to their range. Although we do not welcome yet more examples of these two aircraft it is interesting to see that they are manufactured in 1:50 scale, something that nobody else has yet done.

One would have thought that with the vast amount of information now available to a manufacturer that these two kits would have been reasonable in accuracy. Unfortunately they are not and Marusan have made some rather glaring mistakes which even the youngest enthusiast will be able to pick out at a glance. Of the two, the Me 109 is the best. It has, however, oversize rivet detail and the outline of the fuselage is poor. Similarly the canopy appears to be wrong in a number of places.

Though the Spitfire is a Mk IX, the three-view drawing in the instruction sheet shows a Mk VB. The transfers have a rather sickly shade of blue for the national markings and the codes HS-X are also in blue. Apart from this the detail and accuracy of the outline appears to be reasonably satisfactory. However, the whole model is rather thick and heavy when compared to other manufacturers' products. Priced at 7s 11d each these models were supplied for

Below: Latest release in the Solido 1:43 scale die-cast range is this super detail Ferrari F1 3 litre model. Available from Automodels Ltd, it costs 21s.



review by G. W. Jones Bros Ltd, of Chiswick. Stocks are limited since Marusan have now ceased business. At the modest price, these kits will appeal to the enthusiast willing to 'work' them over for accuracy. *A.W.H.*

## FROM HISTOREX

NEW releases from Historex in their 1:30 scale series of figure kits are a mounted replica of Murat, King of Naples, plus an orderly officer, in a second kit, to go with him. Up to the usual high fidelity of Historex kits, the customary option of horse positions is given for the Murat kit so that you can order him on a standing, galloping, or trotting horse, as required. The orderly officer wears mounted dress but is depicted standing. All components come moulded separately so that any desired position can be fashioned from either kit. Even the buttons, no bigger than pinheads, are on separate sprues. Moulded in matt white plastic, full colouring instructions are given in English and French on a sheet included with the kit. Price of Murat complete with horse 23s 6d, and his orderly officer costs 12s 8d. They are obtainable on mail order only from the UK importers, Historex Agents, 3 Castle Street, Dover, Kent. This firm can also send a list of other Historex kits available to anyone sending a SAE. *C.O.E.*

## ALMARKS RELEASES

THREE new issues in the popular Almarks transfer series are all intended for aircraft. Sheet A7 consists of assorted RAF C Type roundels. 40 altogether which are supplied with separate red centres for application on top of the main roundel. This way the modeller can obviate the registration problem frequently encountered with roundel transfers. As an added 'bonus' the roundels can be used without the red centres as RAAF wartime types. The remaining two sheets are Luftwaffe fighter codes in assorted styles. A12 has them in yellow, black, black outline, and yellow outline. A13 is the same but the colours are white and red. Though intended for 1:72 aircraft, incidentally, these could also be used on tank models. The outlines can be used either separately or in conjunction with the solid colours. Each sheet costs 3s from larger model shops, or by post (postage extra) from any model shop advertising in this magazine. *C.O.E.*

## NEWS FROM HUMBROL

IMPORTANT releases from Humbrol will all be of excellent service to any modeller, and represent a break from paints into the accessory field. Modestly priced at 2s 6d, first new item is a craft knife with a sturdy plastic handle and detachable blade. Two blades come with the knife and extra blades cost only 5d each, available with straight, convex, or concave edges.

Next new release is a series of paint brushes of good quality for their low price. In standard sizes from 00 to 8, prices are 9d (00, 0, 1), 10d (2, 3), 1s (4, 5), 1s 3d (6),

continued on page 374

AIRFIX magazine

## photoPAGE

More rare pictures from readers with captions by Michael J. F. Bowyer. A free Airfix kit is awarded for every picture published, but please note that there is usually a delay of some months before publication due to the limited space at our disposal.



Key: (1) Fine picture from reader Michel Darribehaude of a Liore et Olivier 451 of 1st Escadrille de Groupe de Bombardement 1/11, based at Oran, North Africa, 1940. (2) Close view of another Leo 451 of the same group shows the tail marking and lettering. Note that the lettering is painted out on the machine in Picture 1.



Key: (3) Interesting finish for the Airfix model would be this mottled sand Ju 52 3/M captured and used by the RAF at Foggia in late 1944. Note 'C' Type roundels over German crosses and original code CO+HH in black. Picture by A. Jones. (4) Rare view of Spitfire LF XVIe, TB288 : D-IP, of Bomber Command Instructors' School, 1945. Codes are white. Picture by David Stones.



Key: (5, 6) Two views of a PWS 16 secondary trainer of the Deblin Pilot School, Poland, in Summer 1939. Aircraft is dark green overall. (7) Very rare glimpse of the Zubr (Bison) heavy bomber prototype, also in Summer 1939. (8) R.13 army co-operation/recce aircraft (the Polish 'Lysander'), coded QZ-R under wings, Summer 1939. Pictures by J. Stembrowicz.

Key: (9) HB335, a Vengeance target tug of 733 Sqn FAA, in faded olive drab/grey. (10) Harvard II FS952 of 45 Sqn in glossy yellow with black A/D panel and walkways, and SE-AC roundels. Both by D. Hartnell, Trincomalee, 1946.





# Letters to the Editor

## Warships wanted

I AM a keen collector of all the excellent ranges of Airfix kits, but I find that the model warships in particular are strangely limited in number and variety. This must be an old complaint, yet only two kits, *Fearless* and *Tirpitz*, have been released for two years or more. There are nine British ships of the second world war, three German, and none of any other nation of this period; in addition to these there are five modern British ships.

Surely the immense number of British frigates today present superb possibilities for an Airfix kit? We could have a model of one of the current American carriers, a Russian *Sverdlov* class cruiser, or a model of HMS *Hermes*. The existing selection of British vessels of the 1939-45 era is quite large, although I am sure some more destroyers are needed. On the German side, the total lack of U-boats is an increasingly serious omission: a 'Hipper' class cruiser and a light cruiser would be very welcome, as well as some destroyers and perhaps a 'Q' ship.

Amazingly there are no Italian, Japanese or American vessels available: excellent models could be made, I am sure, of the *Vittorio Veneto*, *Yamato*, *Hiryu*, or *Mississippi*.

Finally, the increasing variety of World War I aircraft is not in any way supported by an adequate naval force. Barring the *Warspite* and *Campbeltown*, there are no ships of this period available. How about HMS *Queen Elizabeth*, *Dreadnought* and *Resolution* on the British side, and the *Emden*, *Seydlitz* and *Von der Tann*, plus a U-boat, on the German?

It would be marvellous if Airfix could combine their own outstanding quality of kit manufacture with the far-reaching variety of the now vanished Eagle 1:1200-scale models.

Nicholas Stevens, Croydon, Surrey.

## Sea Otter finish

I WAS very interested to see the picture of the Sea Otters in Photopage in the December AIRFIX magazine as this confirms the existence as late as 1945 of the four colour upper surface camouflage of, at first, Walrus and later Sea Otter aircraft. This scheme resulted from the requirement that biplanes should have the lower wings painted in lighter shades than the upper wings, presumably to compensate for shadows. On the Walrus and Sea Otter the colours were—upper wings extra dark sea grey and dark slate grey (which was a greenish colour), and lower wings dark sea grey and light slate grey. The interesting point on these aircraft was that the hull sides were divided horizontally by a wavy line (visible in the photograph) and the colours above the line were the upper wing colours and below the line the lower wing shades, alternated so that grey above the line had green (slate grey) below and vice versa. All this complication is detailed on a Supermarine camouflage drawing of the Walrus in my possession. Just to add to the confusion—I do not know if by draughtsman's error or design—one grey and one green patch on the lower wings are painted

Letters to the Editor selected for publication entitle the senders to each receive a free Airfix plastic construction kit of their choice. We are always pleased to receive your comments and pictures, which will be considered for publication. Submitted material and pictures can only be returned if accompanied by a stamped addressed envelope, and the Editor cannot accept responsibility for safe keeping of any such contributions, neither does he necessarily agree with comments expressed by correspondents in the letters columns. Please note that any letters anticipating a reply MUST be accompanied by a SAE or stamp.

in the upper wing colours. If that was an error then it was embodied in production on at least one aircraft as I have seen a picture of a Walrus so painted.

Michael J. Lee, Weybridge, Surrey.

M. J. F. Bowyer writes: Can any reader provide more photographic evidence of this?

## Skybirds recalled

FOR some reason—possibly because I didn't take the magazine then—I missed the April 1967 Skybirds article. The model car collecting fraternity has been taking considerable interest in the vehicles produced by this firm, and there is still considerable confusion as to dates of issue, etc, because of the very few still remaining. If anybody has any Skybirds model cars, petrol bowlers, military vehicles, etc, I would be glad to see them if possible for photographing before it is too late.

I was a very early Associate Member (pale blue badge) and later Club Leader of 603 Club (yellow badge). If I remember there were also Area Leaders who had green badges. During the War my interest of necessity flagged. I remember war-time models were issued with blue celluloid cockpit covers, obviously a last despairing try to keep going. It is news that there were eight News Sheets after the *Air Review* folded, I'd be glad to be lent or to buy old copies of *Air Review* or that series of News Sheets, to photocopy.

The very first models were made of a dark brown hard wood, the later in pine, I think. The first I bought about 1932 was No 2 the Puss Moth, I am almost certain this was the first issue, which raises the interesting point, was the original No 1 an unissued model? I suppose it was inevitable that the plastic kit would take over, but Skybirds taught a lot about working in wood and metal as well as instilling a love of the air and flying in many a youngster. Looking back one can only wonder at the extent of the organisation needed to cope with all these clubs and letters, and I remember with pleasure the plans and sketches of J. H. Stevens, surely one of our pleasantest aeronautical artists. What fun it all was, and I still keep many of the models for old times' sake, the last two I bought being the Me 109 and the Hampden.

Cecil Gibson, The Green, Anstey, Leicester.  
Dr Gibson is a well-known 'vintage' model historian, particularly in the miniature car field. Anyone who can help him with Skybirds items please contact him direct.

*Skybirds No 1* was certainly issued as listed—the C.24 Autogyro shown in Mr Hughes' picture. However, *Skybirds* model 'runs' were very small by comparison with the current output of plastic kits and it is quite feasible to suppose that C.24 kit production only ran into three figures, hence their rarity even in the early 'thirties.—EDITOR.

## Natural finish

AFTER reading the many suggestions in your column for duplicating the mirror-like finish of modern aircraft, I think many readers will be interested in a method I have found successful.

The covering used is aluminium foil chewing gum wrappers.

First, separate the foil from the wax paper backing (this is easily done if the wrapper is cut into smaller pieces and a sharp knife is used to part the layers at one corner).

Before the foil can be applied to the model, the surface of the model must be rubbed with a small amount of saddle soap or clear shoe wax so that the waxy back of the foil will stick to it. Now, press the foil (waxy side down) on to the model and rub down with a paint brush handle. Since the foil is thin it will conform to rivets and lines well and even complex curves can be covered with one piece. It does not tend to pull away from sharp curves as thicker coverings do and when rubbed down the joints between pieces will not be visible.

Dennis N. Kibbe, Tempe, Arizona, USA.

## Sail treatment

I HAVE come across a method to put a more realistic colouring to the sails supplied with plastic models of historical ships. The sails are painted with a slightly diluted mixture of matt dark earth and green enamel paints. Leave the sails for about 30 seconds, then wipe with a soft rag dipped in turpentine or preferably 'thinners'. If the paint appears to be drying too quickly then harder rubbing is necessary. The effect should be a dirty brown green tint to the sails.

Trevor R. Hawke, Liskeard, Cornwall.

## Useful clamps

WHILE visiting a local pet shop with a friend I saw some small clamps used for closing air tubes to aquariums. They are like miniature G-clamps and may be useful for holding plastic parts which are being glued together so eliminating the boredom associated with this task.

The clamps are made by Hyhro of Denmark and cost 1s 6d for two.

S. Griffiths, Leamington Spa, Warks.

## Wrong identity

YOU published a letter in the December edition in which the writer said he thought the aircraft shown in 'SEAC Memories' (October issue) was a Porterfield 35-70, and you commented below that many other readers had written on similar lines.

I do think you ought to correct this for the benefit of your trusting readers! I believe this machine to be a Rearwin Sportster.

An easy way of identifying the Porterfields from similar types was by their parallel wire-braced underwing struts.

The Rearwins had V struts coming together and attached to the fuselage just behind the undercarriage leg rear pickup.

Michael J. F. Bowyer's Photopage remains as interesting as ever. I wonder how many readers still have old photographs they haven't got round to sending?

Jack Meaden, Cheltenham, Glos.

## Tank tip

THE following is a useful tip for converters and scratch builders of AFVs.

Look out for photos showing exact side views which are precisely to 1:76 scale. These serve as plans for types for which there may be no other proper plans. Such photos include the Panzer III Ausf E in the February AIRFIX magazine and the Ausf N in the March issue.

A good catch is the photo of the 18 ton half-track with 88 mm gun in the Bellona Handbook No 2. This has a clear enlargement on the cover as a bonus.

J. Burrows, Southall, Middx.

## Black Oxford

CAN any reader recall RAF West Malling, during August 1942, and identify the resident overall black Oxford II bearing the inscription *Clutterbuck* on the nose?

I received ATC air experience in this machine, but was morally bound to ignore details of station codes and serials!

J. H. W. Norton, New Romney, Kent.

## Danish 504N

BEFORE anybody begins to build a model of the Royal Danish Navy Avro 504N as shown in the February 1969 issue I would like to point out, that the result will be a model of the museum piece mentioned and not a model of the aircraft as it was during the service with the Danish Navy.

On the museum piece the engine with collector-ring, exhaust pipe and airscrew are not original; the engine shown is a Cheetah from an Oxford. However this 'replacement' is by my opinion not too bad, as it does at least look something like the original Lynx installation. Much worse are the small wheels and the undercarriage leg-fairings fitted. These wheels are in fact Spitfire wheels! Also the Danecock in the museum is unfortunately fitted with the same sort of wheels, but on this machine the engine is an original Jaguar which was available for this aircraft after the war.

To help readers I am providing a photograph of a Royal Danish Navy Avro 504N as it was during its service from 1925-1936.

G. Larsen, Naerum, Denmark.

## Skyraider conversion

RECENTLY I attempted converting the Douglas A-1J Skyraider kit into the USAF A-1E two-seater version. Here are a few brief notes on how I did it. The fuselage halves were cemented together and when dry, I cut a section off, all the way from just forward of the cockpit-canopy base to a line just ahead of the tailplane leading edge. A balsa block was inserted and when dry was shaped according to a drawing I made from the *Observer's Basic Book of Aircraft*, of the A-1E. The fin and rudder were also cut off and a new one was made from 1/8 inch balsa sheet. The cockpit was then made by cutting a rectangle shape, and gaps filled with a mixture of talcum powder and dope. At



Rare and delightful photograph of the Avro 504N of the Danish Navy, mentioned in the letter on this page, taken when the machine was still in service and before the Cheetah engine was fitted.

this stage, the fin and rudder were cemented into place and all were then given several coats of talcum powder and dope and sanded down to a smooth surface. The cockpit canopy was made using Alan Hall's method of moulding acetate, but this was not fitted into place till last. The aerials were made from scrap plastic and stretched sprue. Markings for the USAF's 1st Air Commando Group A-1E came from an Airfix F-5, HS Dominic, and home-made transfers. Napalm bombs were carved from balsa. Wings, tailplane, and engine details were as per kit. The two photographs show the completed model.

John W. Saliba, Hamrun, Malta GC.

## Metallic finish

READERS may like to know of a product enabling them to obtain a metallic finish. This is 'Decra-led' which is a coloured transparent window lacquer for producing stained glass. A small jar of this paint came into my possession recently and I discovered its possibilities quite by accident, which led me to experiment with it. The best method to use is first to paint your model (In most cases these will be cars) with Vesta aluminium paint allowing it to dry thoroughly; then coat with Decra-led.

One drawback seems to be the rarity of Decra-led. It is difficult to find in the shops, but worth looking for.

F. Danby, Newcastle, Staffs.

## Plasticraft moulding

I think many readers would find useful a material which, although it has been on the market for some time, has not, to my knowledge been mentioned in the field of plastic modelling. This material is 'Plasticraft' and is a liquid plastic that was originally designed for the making of clear plastic paperweights and jewellery. However, after receiving one of the com-

Two views of the excellent USAF A-1E Skyraider conversion described in the adjacent letter. New fin and canopy are clearly shown



plete sets of Plasticraft and making a number of paperweights, I began to see its possibilities as a modelling material for the making of cast reproductions of anything.

I had to find a suitable mould and settled on Plasticine. This is easily available and seemed the cheapest mould material, but it has an unfortunate tendency to cling—not necessarily to stick—to many inaccessible cracks in the finished product. However a little work with a craft knife removes all traces of it from the cast plastic. To make the mould, the Plasticine is formed more or less into a cube with a flat base and top. The articles to be copied—reproduced in the liquid plastic—are then pressed into the top of the Plasticine and carefully withdrawn. The liquid plastic and its hardener are then mixed, as described on the can, in an old polythene cup (which is not wanted again) or in a tin foil cake dish (the individual kind) and then poured into the mould.

If a reproduction of something needing two detailed faces is required, each side of that article is merely pressed into the Plasticine and the two plastic casts so made are stuck together with the liquid plastic itself. The plastic reproductions formed like this need, of course, to be painted in the desired colour.

The obvious use of this for model makers is in the making of dioramas—part of a wall in ruins, a smashed machine gun lying half buried in mud, all much simplified and cheaper to make than breaking actual kits in an attempt to simulate realistic ruins. Tank mantlets and aircraft nacelles are also feasible with the plastic, though I would have to be really desperate to cast whole tank turrets—that's an awful lot of solid plastic. Perhaps a use not quite so obvious at first is in wargames. A cast of a ruined machine gun or mortar position looks far more realistic than knocking over the model or removing it altogether when it has been supposedly destroyed. With a little practice, using the specially made colours (though more hardener is needed when using coloured plastic) the liquid plastic can be made a just-translucent blue or green for pouring into prepared 'River beds'. When open to the air the plastic dries with a rippled surface, so simulating water. A price list of all Plasticraft products could no doubt be obtained from the manufacturers:

Turner Research Ltd,  
Plastics Division,  
Burley Lodge Place,  
Leeds, 6.

Two more points: thin casts of the plastic are rather fragile and must be cleaned with care. When making a mould with a polythene article, such as an Airfix miniature soldier, care must be taken to ensure that the polythene does not remove some of the Plasticine, after being pressed into it, and so spoil the next cast.

C. Weaver, London, W3.  
Continued on next page



## Middle East days

IN AIRFIX magazine you continue your extremely interesting and valuable series of articles on the colour and markings of aircraft during the second world war. I have some notes of my own on the periods I spent with the RAF and was especially interested in the issue which gave some details of the squadrons and aircraft which were in North Africa in the period between March and July, 1943, for which time I have endeavoured to collect some information, as I have some special memories of this particular time and my own notes are rather lacking.

Many of the facts I seem to have noted seem to be at variance with Mr Bowyer's or with those other sources I have checked. Maybe you could comment.

On March 11, 1943, the stateboard at Maison Blanche aerodrome, near Algiers, showed the following squadrons: No 32 Hurricane IIC, No 43 Spitfire VC, No 153 (F) Beaufighter IV and VII.

Aerodromes in use by the RAF were Blida, Bone, Djidjelli, La Senna, Tingley, Maison Blanche, Constantine, Canrobert, Jemmapes, Orleansville, Setif, Souk el Arba, Tafaroui, Taher.

By March 16, 253 Squadron had replaced 43 at Maison Blanche. This squadron had Hurricanes both with and without extra fuel tanks, 87 had Hurricanes with extra tanks. 87 was also at Maison Blanche by March 16.

On April 10, I noted that 32 had a Spitfire VC Tropical, 253 had two and 87 one. C47s were at Blida. Another field in use was Senem.

By April 20, 32, 253 and 87 Squadrons were re-equipping with Spitfire IXs. I have a strange note that 92 Squadron had moved in with Bell P-39s. This I cannot understand as it seems to refer to an American squadron. A mixed group of American aircraft moved into Maison Blanche at about this time with an enormous 'circus' of vehicles and scores of officers, many in campaign hats and looking like cavalymen. I remember the khaki drab P-38s well but did not see any P-39s. But for some reason the note is made. Did any Airacobras in fact serve in Africa?

By May 4, other notes say that the P-38s included in fact F-5As. There was quite a lot of reconnaissance work carried out across the Mediterranean

from this aerodrome, in some cases to North Italy, as I remember some kites having Milan, etc, as their objectives on the board. We had some Spitfires for long-range reconnaissance, stripped of all armament and coloured in that most attractive blue shade overall. They were code named 'Peanuts'. I have somewhere still a full list of the codewords used on control at that time.

The French had, of course, an astounding mixture of aircraft on this aerodrome. I have noted Amiot, Glenn Martin 167 ASs, Potez 540s, Dewoitine D-540s, at least one SM81, Caudron Goelands, a D520A.

A mystery affects the following codes for squadrons which you may be able to explain: EF: Handley Page Halifax 1; GZ: Hurricane IIC Tropical; MX Spitfire V (US).

By the way, in a compound at MB were many 'Spits' with US markings, looking particularly dirty in olive drab which in the bright sunlight looked like a rather unmentionable shade and with huge white stars on the dark blue circles of the then common national marking. They were stripped of their wings and the fuselages were piled up one on top of the other in huge piles. I was at the time appalled at the apparent colossal waste but apparently they had been used only at the outset of the Operation Torch. At Blida, too, I understood that Forts were just wheeled off the runway and stacked over at the side of the field when non-operational as the supply of aircraft was just reaching huge proportions as far as the US Army Air Corps was concerned. Even at Maison Blanche we had rows of wingless Hurricanes on which little work appeared to be undertaken.

I believe that the US wing which replaced the RAF fighter wing there to cover the harbour and convoys in the Spring of 1943 had Mustangs, P-38s and the legendary P-39s but the mixture seems too strong. I do recall the colossal flap when the sign of 'bandit' appeared with hordes of Air Corps men round the board, the dais thick with officers in natty new campaign uniforms and one special control officer who imitated Brod Crawford and had exactly the same enunciation. The squadrons had so little tie up that it was common for them to be vectored on to each other and planes like Albacores of the FAA had little chance if a Yank should spot them.

If you have any comments, I would be

pleased to hear them, also of any way I can obtain a complete list of British and Yank squadrons in the area at this period if such is possible.

But for the loss of many of my notes in the campaign in France of 1940 I would have many other items from this time, especially of the French Air Force. I believe that I saw one day the retirement of the remnants of the Belgian Fairey Foxes, etc, and also even some Avro 504s when I was in the area of Hazebrouck.

T. H. Maskell, Bath, Somerset.

M. J. F. Bowyer writes: *What an interesting letter, of the sort one always hopes to find in our mountain of mail!*

*No attempt was made to list everything in North Africa in 1943, but to give a reasonably complete overall picture on page 395. The swopping to Spitfire VB and VC was almost continuous and the Mk IXs filtered into the area in March and April ready for the Sicily offensive, although it is likely that some patrols were flown with them before this date.*

*No 32 Sqn went to North Africa at the end of December, 1942, and flew coastal and convoy patrols in the Bone area with 87 Sqn. Spitfire Vs replaced the Hurricane IICs in about May, 1943, and the squadron moved through Tunisia to Italy, returning to Africa in December, 1943. It became part of the Balkan Air Force in July, 1944, as part of 281 Wing. Later that year with Mk IXs it went to Greece and to Palestine in 1945, from where later it was to cover the British evacuation from Haifa.*

*GZ was the code of 32 Sqn, the MX Spitfire (USAAF) was one from the squadron in the UK. EF it is still tempting to list as 148 Squadron, whose codes remain elusive.*

*The Official histories of the war in the Middle East list sundry battle orders and would be useful to consult at any library.*

*There were indeed lots of P-39s in North Africa. One Group worked up at Duxford and Snailwell in late 1942 before moving east. They gave away their destination for in place of the usual green camouflage these had brown upper decks!*

*What a pity your notes on 1940 are missing, for these are now precious.*

*Have we amongst our readers any who served with the Battles in France and the Blenheims of 2 Group in 1940?*

Reader D. Kinneavy writes to identify the the Hellcat shown on our January Photopage as being from 808 Sqn, FAA.

## New Kits—from page 370

Is 6d (7), Is 9d (8). Also available are camel mop head brushes at 2s 6d (size 2) and 3s (3, 4). Finally there is a goat hair brush at 9d. These brushes appear to be strong and are certainly well finished. Preliminary tests (though these cannot be conclusive over so short a period) show no tendency to shed hairs.

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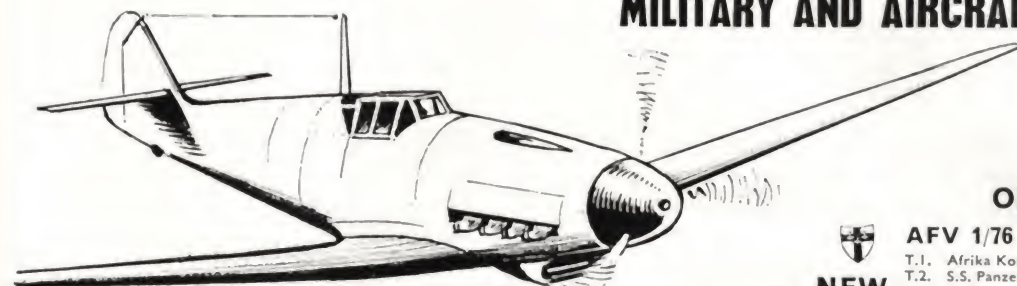
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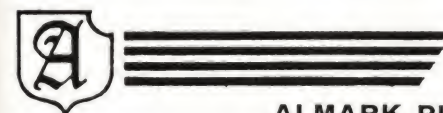
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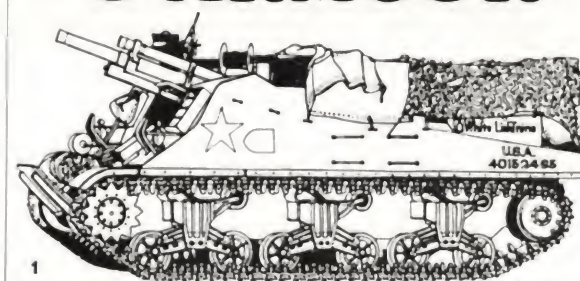
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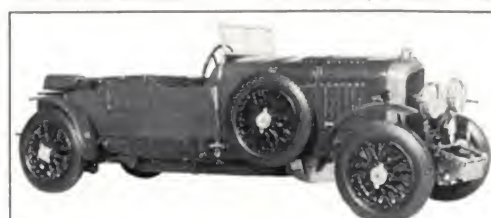
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